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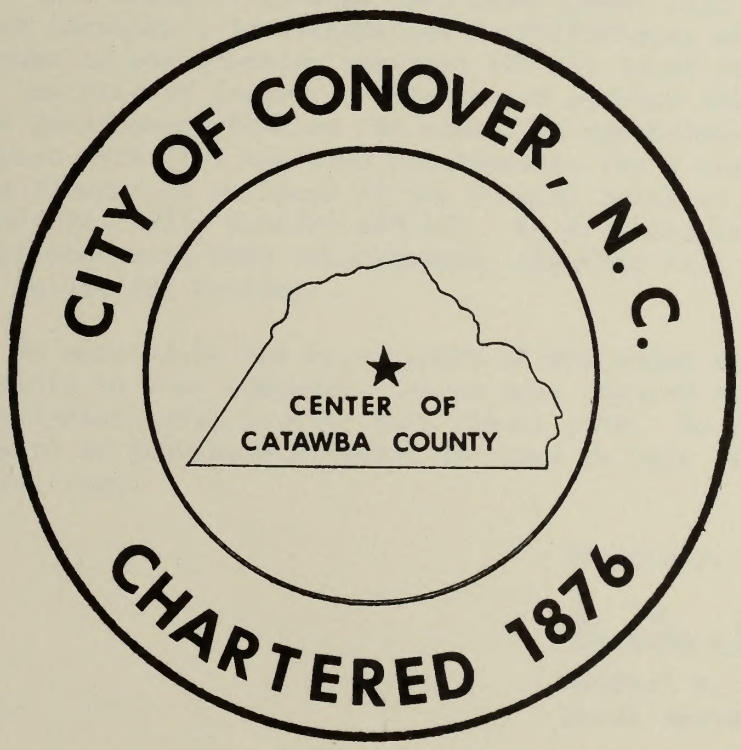
Updated Land Use Survey and Analysis

and Land Development Plan of Conover



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July 19, 1978

Mr. J. E. Robinette, Manager
City of Conover
P. O. Box 485
Conover, N. C. 28613

Dear Ed:

This report, "Updated Land Development Plan - Conover, North Carolina", is transmitted in fulfillment of the final element of our planning contract (#5461) dated July 1, 1977, for the City of Conover. This report updates the old 1972 Land Development Plan on the community and brings it in compliance with DHUD mandated requirements for a Land Use Planning Element as outlined in the Federal Register (40CFR164, August 22, 1975, Section 600.72). By bringing the plan in compliance with DHUD requirements, the City will be certified for future 701 funding.

We appreciate the opportunity of providing the planning services to your community and we have enjoyed our working relationship with Conover this fiscal year. We do look forward in providing planning services to your city this coming year.

Sincerely,

Michael E. Grandstaff

Michael E. Grandstaff
Local Assistance Planner

MEG/ck

cc: Mr. Mathey Davis
DNR-CD - South Piedmont

UPDATED LAND USE SURVEY
AND
LAND DEVELOPMENT PLAN

CONOVER, NORTH CAROLINA

PREPARED BY

WESTERN PIEDMONT COUNCIL OF GOVERNMENTS

1978

The preparation of this report was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the State of North Carolina.

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STANDARD TITLE PAGE FOR TECHNICAL REPORTS	1. Report No.	2. Gov't Accession No.	3. Recipient's Catalog No.

4. Title and Subtitle

Updated Land Use Survey and Land Development Plan, Conover, North Carolina

5. Report Date

June 1978

6. Performing Organization Code

7. Author(s)

Western Piedmont Council of Governments

8. Performing Organization Rept. No.

9. Performing Organization Name and Address

N.C. Dept. of Natural and Economic Resources
Division of Community Assistance
P.O. Box 2768
Raleigh, N. C. 27611

10. Project/Task/Work Unit No.

11. Contract/Grant No.

5461

12. Sponsoring Agency Name and Address

Department of Housing and Urban Development
451 Seventh Street, S.W.
Washington, D.C. 20410

13. Type of Report & Period Covered

Final

14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstracts

The Updated Land Use Survey and Land Development Plan analyzes the existing land uses, the economic and social conditions which make up the physical enviornment of the Conover planning area. From this compiled data, a Land Development Plan was formulated which offers a pattern of orderly and systematic growth for the City and its extraterritoral planning area.

17. Key Words and Document Analysis. (a). Descriptors

- Analysis of existing conditions and other background information.
- General population characteristics.
- Land Use Survey and Analysis.
- Land use standards and principles.
- Location standards and future space requirements.
- Land Development Plan.
- Thoroughfare Plan.
- Implementation

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

18. Distribution Statement

City Clerk
City of Conover, North Carolina

19. Security Class (This Report)	21. No. of Pages
Unclassified	96
20. Security Class. (This Page)	**22. Price**
Unclassified	$2.00

Form CFSTI-35 (4-70)

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Planner-In-Charge, Michael E. Grandstaff

The preparation of this report (map, document, etc.) was financed in part through a Comprehensive Planning Grant from the Department of Natural and Economic Resources of the State of North Carolina.

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PART I
GENERAL BACKGROUND INFORMATION

INTRODUCTION

Purpose, Scope, and Methodology

The main purpose of this report is to fulfill and identify Conover's future land use needs as well as to update the City's outdated 1971 Land Development Plan. The second purpose is to meet HUD Planning Program certification requirements, as outlined in 24 CFR 600.72.

This report contains six main parts: The first is background data on history, growth, regional setting, topography, drainage, water, sewer, economic and basic population trends. The second is an inventory and analysis of existing land uses and their related problems in the community. Part three is planning criteria for evaluation; that is, goals, principles, and standards for providing sound urban development, and the fourth is composed of the City's land development plan. The fifth explains the numerous tools and ways therein whereby the plan can be implemented, and the sixth is composed of the Environmental and Historical assessment.

Emphasis is placed entirely on the City of Conover and its one-mile extraterritorial planning area instead of both Conover and Newton, as was done in the earlier seventies. In order to update the Community's Land Development Plan, a complete new Land Use Survey and Analysis was undertaken in order to analyze the existing land use trends, and to be able to see how the City has grown since the last survey, which was conducted in May of 1971.

Since this report is an update of the 1971 Land Use Survey and Land Development Plan, most of the background material on existing conditions is not repeated. Therefore, the reader should consult the 1971 Land Use Survey and Analysis and the 1971 Land Development Plan on the Conover and Newton area for background information. However, wherever background information needed to be upgraded due to changes, new information was presented in this study. Prior to updating the City's land uses, an up-to-date base map needed to be drawn showing recent annexation and the City's new planning boundaries. Using this map, a field survey was conducted in October of 1977 of all land use and housing within the City's planning area.

After collecting and analyzing the various land use information, population projections were calculated using past trends and State population reports. The population information was used in projecting future land use acreage requirements with emphasis being placed on future growth potential such as: existing land uses, water and sewer mains, major roads, schools, parks, etc. This information, along with the input from the City Planning Board, City Manager, City Engineer, and the City Council, all helped to establish the future land development plan for the City.

History and Growth

The City of Conover is the geographic center of Catawba County. The City formed at a "y" intersection, or at a point where the main line of the Southern Railway had a branch line extending to Conover's sister city, Newton. The parcel of land which was to become Conover was owned by Francis Smyre, who owned and operated a successful boarding house in the community. In the middle 1800's, the community was known as the "y" town. The "y" town was incorporated on January 26, 1877 (1876-77 Legislature),

---

(Note: Conover was known by that name when the railroad was completed as far west as Morganton in 1860. The spur line was not built until after the Civil War.)

under the name of Conover when a railroad depot was constructed. The coming of rail service to the community was influential in attracting growth to the area.

Conover's growth was greatly influenced by the railroad, excellent access to good roads, and the establishment of furniture enterprises in the Community. Furniture and paper products were the two basic industries -- the growth of these two industries, with its stimulation of related metal and plastic parts manufacturing enterprises, has encouraged the settlement of the City to what Conover is today -- a striving bedroom community to the manufacturing areas of Catawba County.

Regional Setting and Geography

The City of Conover and its planning area is located in the center of Catawba County. Catawba County has an area of 406 square miles or 259,840 acres, and is bordered on the north by Alexander County, on the northeast by Iredell County, on the south by Lincoln County, on the west by Burke County, and on the northwest by Caldwell County. The predominate city in the County is Hickory, and it is located in the northeast corner of the County, and is about eight miles west of Conover. (See Map 1, Regional Setting)

Access

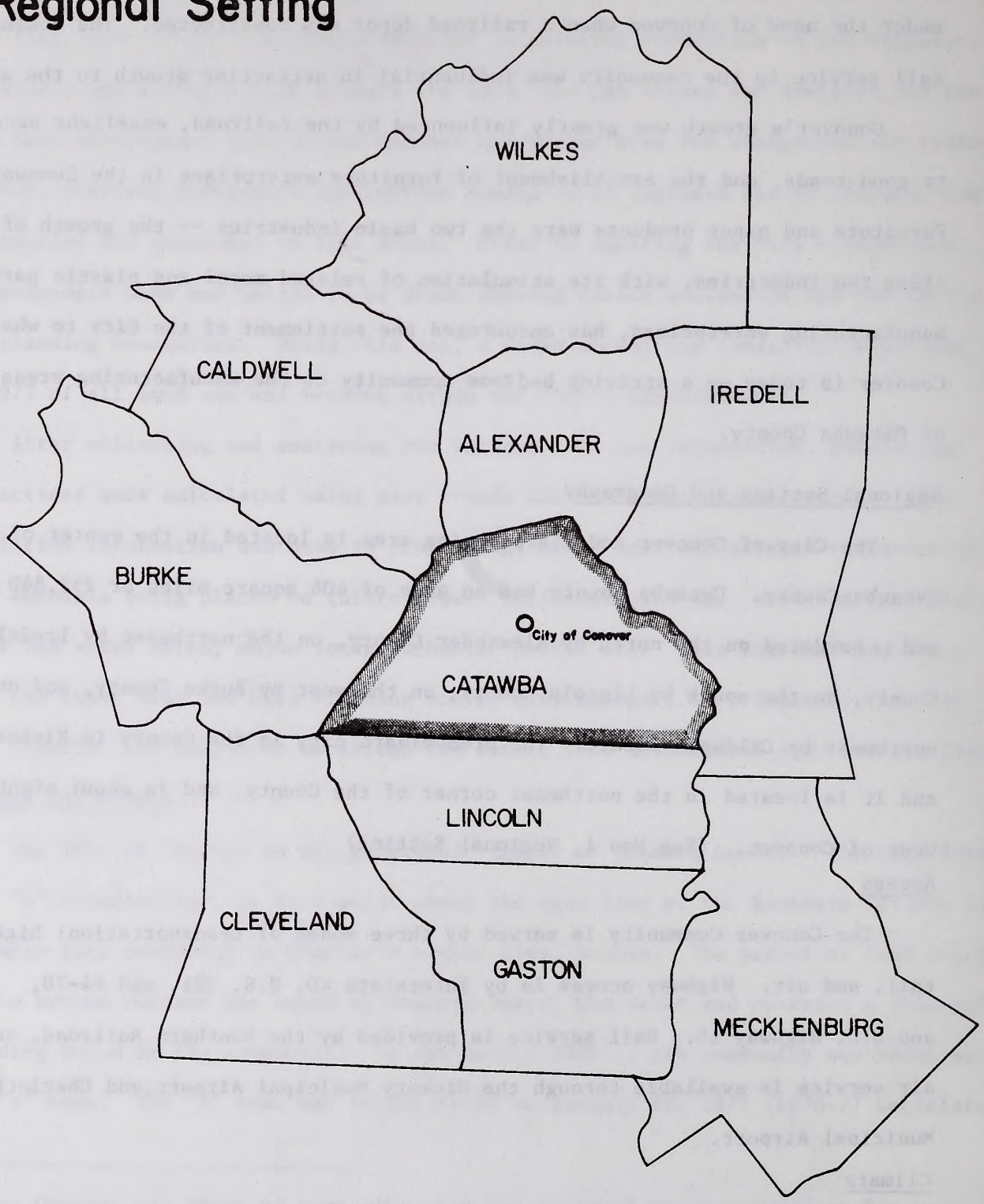
The Conover Community is served by three modes of transportation: highway, rail, and air. Highway access is by Interstate 40, U.S. 321, and 64-70, and N.C. Highway 16. Rail service is provided by the Southern Railroad, and air service is available through the Hickory Municipal Airport and Charlotte Municipal Airport.

Climate

The climate is temperate. Rainfall is generally sufficient for the crops grown within the County. Winds blow more frequently from the north and northeast direction during most of the year; however, prevailing winds are from the

CONOVER, N.C.

Regional Setting



The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

MAP NO. I

south and southeast direction during the summer. The climateology records on Catawba County indicate that the average temperature is 59.1 degrees fahrenheit. In January, the average temperature for the County ranges between 40 and 42 degrees; precipitation is around 49.64 inches. The precipitation is well distributed throughout the year. The County has approximately 180-200 days annual growing season without a killing frost. Generally, snowfall is heavier in March, and records of the period since 1920 show that on the average, snow accumulates at a greater depth in March than in mid-winter.

Climate and weather patterns are important to Conover, for weather does affect the design and placement of roads, buildings, water supplies, sewerage systems, homes, businesses, industries, and recreational areas. The prevailing winds should be taken into consideration when locating any offensive uses within the general vicinity of the City.

Topography*

The County has an average elevation of 1,165 feet above sea level. The elevation rises to 1,812 feet on Baker Mountain. However, for the most part, the moderate to rough terrain is between 500 and 1,000 feet above sea level.

The topography is gently rolling except for land immediately adjacent to stream beds where slopes in excess of 15% may be found.

Drainage. Urban development is directly affected by the natural factor of drainage. Development problems created by flooding and erosion can be avoided by using the natural drainage and by understanding the limitation of soils and topography. Development at urban densities should be restricted to those areas which are upstream of waste treatment facilities (the Clark's Creek, Lyle Creek, and McLin Creek drainage basins) to minimize the cost of providing sanitary

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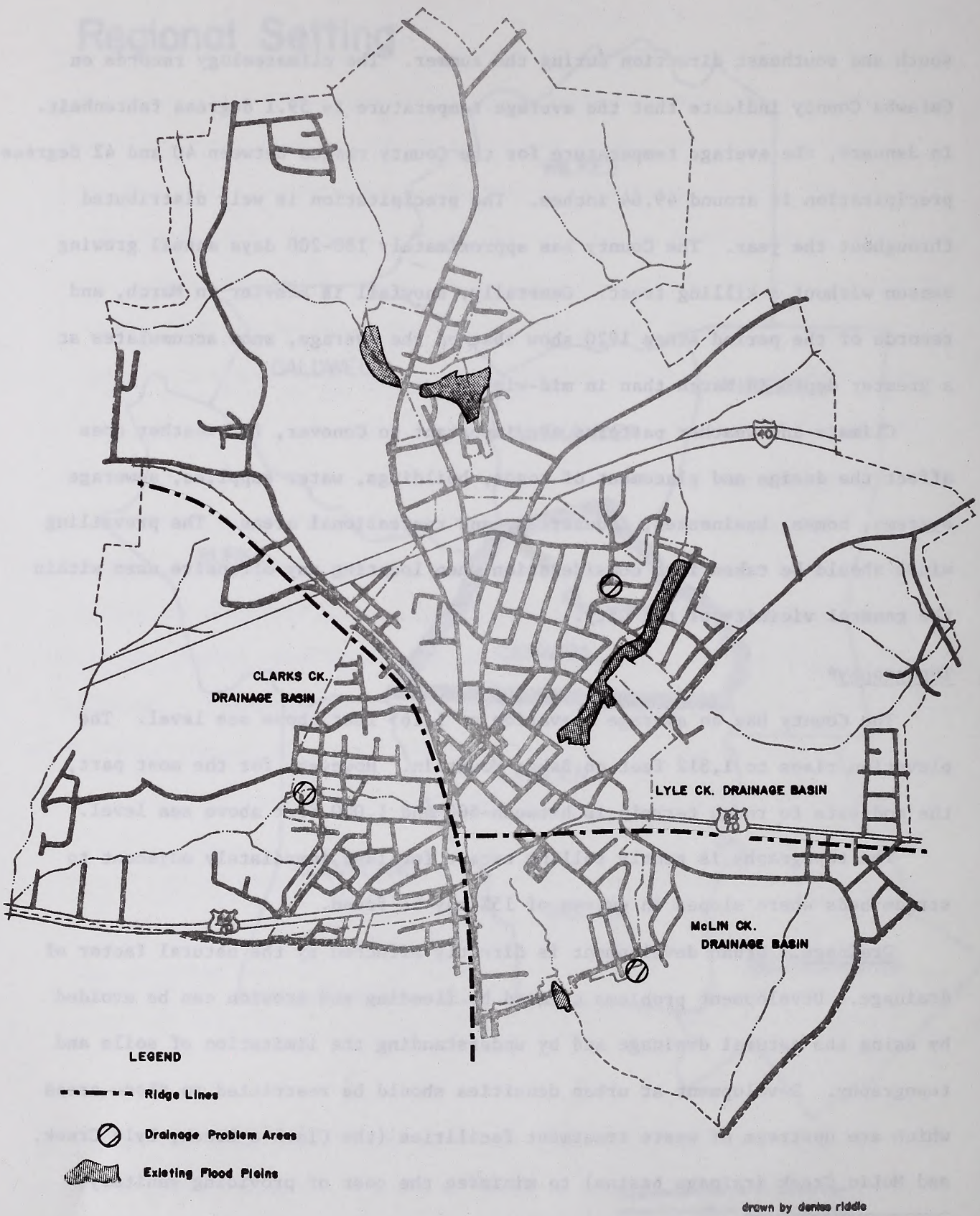
* Topography & Drainage Data was taken from the 1972 Land Use Survey & Analysis on Newton-Conover, N.C.

NATURAL DRAINAGE BASINS & FLOOD PLAIN MAP



drawn by denise riddle

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MAP NO. 2

sewer services and prevent the public health hazard incurred when urban densities are allowed to occur in areas which are not served by sanitary sewer systems.

The Conover planning area is divided into three drainage areas. They are Lyle Creek, McLin Creek, and Clark's Creek drainage areas. The ridge lines which separate these areas can be located by using roads and railroad right-of-way. Clark's Creek and Lyle Creek are separated by a ridge which comes from the east along present U.S. 64-70 to a point where the Southern tracks cross N.C. 16 in Conover and then west from Conover toward Hickory along the railroad tracks. McLin Creek and Clark's Creek are separated by this same ridge; however, the ridge continues southeast approximately in the same vicinity along the railroad tracks to SR 1735. Lyle's Creek and McLin Creek are separated by a ridge beginning in downtown Conover and running southeast and then east in the vicinity of East 1st Street and then US 64-70.

The Conover community is well drained except for three areas which are shown on Map 2. There are some minor drainage problems in Conover within the Lyle Creek Drainage basin due to some ditches that are not large enough to handle run off flows; in the McLin Creek Drainage basin some existing drain tile is inadequate to handle storm flow; in the Clark's Creek Drainage basin will not drain due to undergrowth.

Flood Plains

Flood plains along the three major creeks in the planning area and their tributaries are shown on Map 2. They vary considerably in width and to some degree in soil type. The flood plain areas are subject to frequent flooding. The placement of any artificial or unnatural obstruction in the flood plain should be discouraged, and if unavoidable, should be strictly controlled to avoid damage to persons and property. The City of Conover has joined the National Flood

Insurance Program in order to afford individual property owners in flood prone areas, insurance coverage at affordable rates. At the same time, this program requires that Conover, with designated flood prone areas, adopt flood plain management measures to protect against the devastation of future flooding. This is being accomplished through the City's Inspection programs, citizens are protected from building in flood prone areas in the community.

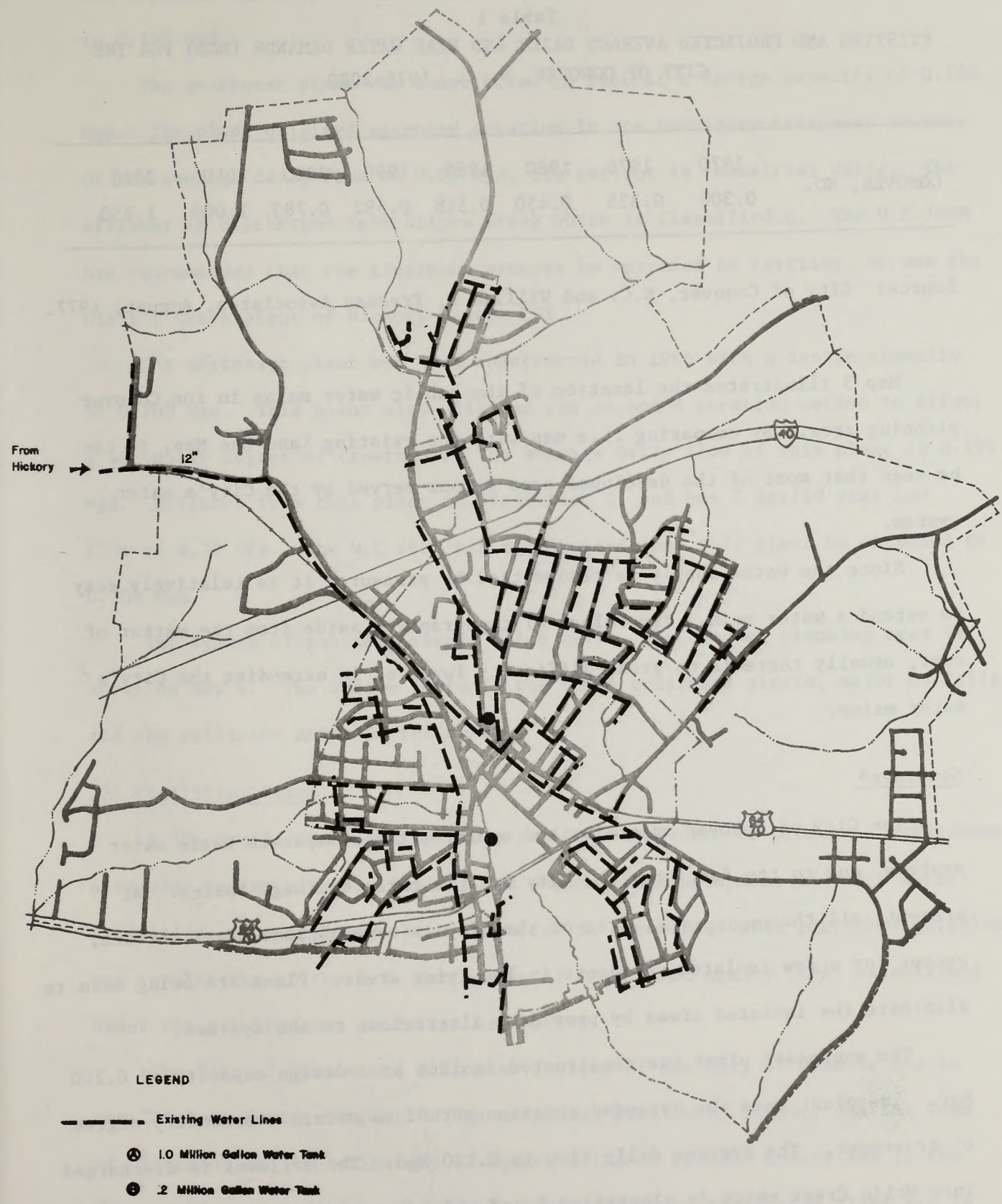
Water Resources

Water resources within Catawba County are almost unlimited due to the numerous lakes available throughout the area. Lake Hickory, Lake Norman, and Lookout Shoal Lake all form along the northern and eastern boundaries of the County, and these lakes can provide any amount of water needed to serve the urban areas of Catawba County.

The City of Conover receives its finished water through a twenty inch diameter water main along U.S. 64-70 - 321 and a 12" line along Old 70A from the City of Hickory. The City of Hickory's present capacity for production of water is 16 Mgd; their storage capacity is 6 Mgd. At the present time, the City of Conover bases its estimate of water available from Hickory on a continuous rate of 3,000 gpm, which equals 4.3 Mgd. Conover has approximately 1,299 water customers, using a daily average consumption of 275,000 gallons, the daily average consumption in the summer months is 325,000 gallons. There are approximately 28 miles of water mains with 185 fire hydrants throughout the City. Elevated storage capacity consists of 1.2 MG gallons.

Existing and projected average daily water demands are set forth in Table 1.

EXISTING WATER DISTRIBUTION MAP



drawn by denise riddle

MAP NO. 3

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

Table 1
EXISTING AND PROJECTED AVERAGE DAILY AND PEAK WATER DEMANDS (MGD) FOR THE CITY OF CONOVER, N. C. 1976-2020

	1970	1976	1980	1985	1990	2000	2010	2020
CONOVER, NC.	0.300	0.325	0.450	0.518	0.592	0.783	1.000	1.250

Source: City of Conover, N.C. and William F. Freeman Associates, August, 1977.

Map 3 illustrates the location of the public water mains in the Conover planning area. By comparing this map with the existing Land Use Map, it can be seen that most of the developed area is now served by the City's water system.

Since the water supply is transmitted by pressure, it is relatively easy to extend a water main, regardless of topography. Aside from the matter of cost, usually there is no great difficulty involved in extending the City's water mains.

Sewerage*

The City of Conover maintains and operates three separate waste water systems, due to the fact that the City lies in three drainage basins. At present, all the incorprated area of the City is on municipal sewer service, except for a few isolated residents in low lying areas. Plans are being made to eliminate the isolated areas by providing alterations to the systems.

The southeast plant was constructed in 1966 at a design capacity of 0.200 Mgd. The plant uses the extended aeration method to obtain a secondary degree of treatment. The average daily flow is 0.130 Mgd. The effluent is discharged into McLin Creek which is classified C and which has a 7 day/10 year flow of 0.51 Cfs. The North Carolina Division of Environmental Management (DEM)

has approved the City's "201" plan, which shows that this plant will be expanded to 0.700 Mgd.

The southwest plant was constructed in 1966 at a design capacity of 0.100 Mgd. The plant utilizes extended aeration in its secondary treatment process. Of the average daily flow of 0.05 Mgd, ten percent is industrial waste. The effluent is discharged into Clines Creek which is Classified C. The N.C./DEM has recommended that the treatment process be upgraded to tertiary, or use the Clark's Creek plant of Hickory-Newton 201.

The northeast plant was also constructed in 1966 with a design capacity of 0.200 Mgd. This plant also utilizes the extended aeration method to effect a secondary degree of treatment. The average daily flow of this plant is 0.190 Mgd. Effluent from this plant is Classified C, and has 7 day/10 year low flow of 4.30 Cfs. The N.C./DEM has recommended that this plant be expanded to 0.700 Mgd.

The system of sanitary sewers which serve the Conover planning area is shown on Map 4. The system includes the three treatment plants, major outfalls, and the collector mains in the system.

201 Facilities Plans

A 201 Facilities Planning Study has been conducted to produce a comprehensive area-wide master plan for logical and economical development of waste water facilities. The study has been conducted in accordance with published guidelines and regulations of the U.S. Environmental Protection Agency (EPA) established under the requirements of Public Law 95-500.

The City of Newton and southwest section of the City of Conover are in the "Hickory-Newton Complex." The northeast portion of Conover and the Town of Claremont and approximately 90 square miles of Catawba County are in the Conover-Claremont-Catawba Complex." Presently these facilities plans are in various states of completion.

EXISTING SANITARY SEWER MAP

drawn by denise riddle

MAP NO. 4

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The Hickory-Newton facilities plan recommends treatment of waste-water from Newton and southwest Conover in a new treatment facility located on Clark Creek at the site of the existing Newton Waste Water Treatment Plant. The proposed treatment plant calls for a design capacity of 5.0 Mgd, and in a second phase, be renovated and enlarged to a capacity of 11.0 Mgd. The existing Conover waste water treatment facility is scheduled to continue to operate until Phase II when an outfall will be constructed from the Conover plant site to the facility southwest of Newton.

The Conover-Claremont-Catawba Facilities Plan, also known as the Eastern Catawba County 201 Facilities Plan, has various projects in preliminary state of completion at present. The Conover northeast waste treatment plant will be let to contract in the next 12 months and be expanded according to alternate one of the 201 plans. The Conover southeast waste treatment plant is in step II design-engineering phase, and is expected to be under contract by fiscal year 1978-79. The southwest waste treatment plant effluent, if not expanded as an alternate, will eventually flow into the Hickory-Newton Clark Creek plant, as Conover owns 10% or 0.6 Mgd capacity of the plant.

Any future construction of waste-water facilities for which Federal financial assistance is sought must be compatible with these 201 plans:

TABLE 2

Waste Water Flow 1970-2020

CITY, TOWN OR COMMUNITY	PROJECTED AVERAGE WASTEWATER FLOW (In MGD)						
	1970	1980	1985	1990	2000	2010	2020
Newton*	2.250	2.400	2.620	2.820	3.330	3.810	4.200
Conover	0.385	0.469	0.518	0.592	0.783	1.000	1.250
Claremont	0.100	0.120	0.130	0.141	0.170	0.210	0.245
Catawba	0.216	0.240	0.252	0.263	0.292	0.316	0.331
Maiden*	0.875	0.905	0.945	0.982	1.100	1.190	1.300
Total	3.830	4.130	4.470	4.800	5.680	6.530	7.330

* Includes industrial flows.
** Source: Water Resource Management, Wm. F. Freeman Assoc. 1976

Table 2 illustrates projected average Waste Water flow in Mgd for Conover and selected municipalities involved in the "201" facilities plans. Map 5 illustrates the extent of the Conover 201 facilities boundaries.

Soils

Soils affecting the Conover Community were adequately covered within the 1972 Newton-Conover Land Use Survey and Analysis Report. Therefore, only a brief analysis will be given here.

The soils of the Conover area are of two associations: The Hiwassee-Cecil Association and Hiwassee Association. Generally, each is described as gently sloping to moderatly steep soils on broad ridges and short side slopes, with dark red clay subsoils. The Hiwassee soils are derived from mixed acidic and basic rocks, and the Hiwassee-Cecil from mixed acidic and basic rock or acidic rocks. Their limitations are set out in Table 1 and Map #3 of the 1972 Newton-Conover Land Use Survey and Analysis Report. Reference to this report and consultation with the Catawba County Soil Conservation Service is recommended before making any major land Development decisions.

POPULATION

The Conover population and it's size, composition, and future projected growth are vital factors which need to be taken into consideration when assessing existing and future land use needs. The population contained in this section of the report will be briefly presented since detail information on the City's population was presented in the Housing Survey and Analysis Report on Conover in June, 1977.

201 SERVICE AREAS MAP

drawn by denise riddle

SOURCE: G. Eugene Smithson & Assoc., Inc. 5/24/78

MAP NO. 5

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

Table 3 shows the population growth in Conover from 1900 through 1977, and shows what future growth may be if past trends continue to the year 2000.

TABLE 3

POPULATION GROWTH OF CONOVER, 1900 - 2000 *

Year	Population	Increases	Percent Change
1900	413	NA	NA
1910	421	8	1.9
1920	681	260	38.2
1930	973	292	30.0
1940	1,195	222	18.6
1950	1,164	-31	-2.7
1960	2,281	1,117	48.9
1970	3,355	1,074	32.0
1977	3,558**	203	6.0
1980	3,648	90	2.5
1990	3,948	300	8.2
2000	4,238	290	-7.3

Source: Newton-Conover, N.C. Community Facility Plan, June, 1971.

* Department of Administration, Raleigh, N. C.

** Estimate From 1977 Housing & Survey Report on Conover, June 1977 by the W.P.C.O.G.

Since the early 1900's the City's population has been growing at a fairly steady rate, with some minor fluctuations. Table 3 shows the City having only 413 people in 1900 and by 1977 the population increased to 3,558, thus representing a numerical increase of 3,145 and a percentage increase of 88.3 percent.

Projected growth trends indicated that the City can expect a 1980 population of about 3,648 people and a 1990 population of about 3,948 and by the year 2000, a population of 4,238. If this same growth rate (approximately 7.3 to 8.2%) is applied to the one-mile extraterritorial area, the Community could expect a population of over 5,500 by 1980 and appriximately 6,300 by the year 2000.

Conover's population growth is tied to two local industries --- furniture and paper products. The growth of these two industries, particularly furniture, with its stimulation of related metal and plastic parts manufacturing enterprises, has attracted new people to the community for jobs, thereby aiding in settling the community and expanding commercial activities in the area.

TABLE 4

General Population Characteristic
For The City of Conover, N. C. - 1970

Total Population	Population per Square Mile	Number of Households	Persons per Household
3,355	1.525	1,037	3.18

Ethnic Breakdown:

White	Negro	Indian	All Other	Percent of Negro and other races
3,014 (89.8%)	338 (10.0%)	1	2	10.2

Sex Breakdown:

Total		White		Negro	
Male	Female	Male	Female	Male	Female
1,597	1,758	1,425	1,589	171	167

Age Breakdown:

Under 19	20 to 64	65 and over	Median Age	
			Male	Female
1,283 (38.2%)	1,825 (54.4%)	247 (7.3%)	27.7	29.2

Fertility Ratio: 355 children under 5 years per 1,000 women 15 - 49 years.

Median School Years Completed: 12.3

Familes Percent of Income:		
	Less than Poverty Level	2.0
	$15,000 or more	20.1
	Median Income	$11,229

Source: U.S. Census, 1970.

General Population Charactistics

Table 4 illustrates the 1970 population characteristics for the city. According to the 1970 Census, Conover has 1.525 persons per square mile, who live in 1,037 dwelling units, with 3.18 persons per household. These statistics indicate that the city follows an urban pattern. Only 10.2 percent of the total population is composed of Blacks or other races. The females in both the total population and the white population out number their male counterparts. As for the Black population, there are more males than there are females. Over one-third of the City's total population is under 19 years of age, and almost eight percent is over 65 years of age. The median age for males is 27.7 years and for females, 29.2 years. The median school years completed for adults 25 years of age and older is 12.3.

Population By Age Groups

The Housing Survey report showed that the general population was becoming increasingly older, that there were fewer children being born and more citizens were reaching retirement age currently than in the 1960's. (see Table 5)

From this table, it is interesting to note that the younger, non-productive age groups (0-14 years) made up 30.2 percent of Conover's population. The next age group (15-34 years) have also increased over the 1960 census. The 15-34 year age group is the one that the community needs to be sure that

TABLE 5
Population by Age Groups for
Conover, N. C., 1960-1970

Age	1960	%Dist.	1970	% Dist.	% Change 1960-70
Under 5 yrs.	297	13.0	303	9.0	2.0
5-14	458	20.1	710	21.2	55.0
15-24	319	13.9	486	14.6	52.3
25-34	404	17.7	497	14.8	23.0
35-44	310	13.6	474	14.1	52.9
45-54	241	10.6	367	10.9	52.3
55-64	118	5.2	271	8.0	30.0
65 and over	134	5.9	247	7.4	84.3
Total	2,281	100.0	3,355	100.0	47.1

Source: U. S. Census, 1960 and 1970

they are retained in the area. For these young adults are the community's future leaders. Consequently it is important that employment opportunities be made available to them locally so that young adults are not lost to other larger urban areas. As can be seen from the table the established productive age groups (35-64 years) and retired age group (65 and over) have also shown substantial increases over the 1960 census.

ECONOMY

All cities are dependent upon some sort of economic activity for their existence. The single most important factor to a City's standard of living is its local industries, which provide for its economic base upon which the Community draws its strength and supports itself.

According to the last official census (1970), the three leading employment categories within the Conover area are manufacturing durable goods and retail and wholesale trades. Almost 60% (58.6%) of the City's employed are in manufacturing and durable goods. Another 33.9 percent of Conover's labor force is employed in white collar-type jobs, such as wholesale-retail trades, finance, insurance, business, repair services, professional, educational, and public administration. According to Table 6 , over one-third of the City's total employed population have occupations classified as professional or white-collar.

Table 6

OCCUPATIONS OF EMPLOYED PERSONS
FOR CONOVER, N.C. - 1970

		% Dist.
Total employed, 16 years old and over	2,167	100.0
Construction	59	2.7
Manufacturing	816	37.6
Durable Goods	456	21.0
Transportation	48	2.2
Communications, Utilities, Sanitary Services	29	1.3
Wholesale and Retail Trade	270	12.5
Finance, Insurance, Business, Repair Services	95	4.4
Professional and Related Services	210	9.8
Educational Services	127	5.9
Public Administration	29	1.3
Other Industries	28	1.3

Source: U.S. Bureau of Census, 1970.

In January of 1976, the N.C. Employment Security Commission reports total manufacturing employment for Catawba County was 32,290, and for the City of Conover, it was 6,166. In the Conover Community, furniture employment represents almost 60 percent of the total employed; whereas, in the County, textiles and

apparrel are the main employers (see Table 7, which shows manufacturing employment for Catawba County and the City of Conover for 1976. Textile and furniture are two industries which export their products and thereby, bring money back into the area. The other manufacturing occupations, consisting of white-collar related employment are occupations which pay the higher wages; therefore, allows Conover citizens to afford above average standard of living.

Table 7

MANUFACTURING EMPLOYMENT FOR CATAWBA COUNTY
AND THE CITY OF CONOVER FOR 1976

	Catawba County	% of Total	Conover	% of Total
Furniture	12,410	38.4	3,662+	59.4
Textiles and Apparrel	12,960	40.2	1,198+	19.4
Other Manufacturing	6,920	21.4	1,306+	21.2
	32,290	100.0%	6,166	100.0%

Source: N.C. Employment Security Commission, Hickory Branch, January, 1977.

A national survey, compiled by the Economic Research Department of the United States Chamber of Commerce in 1970, showed that for every 100 new factory workers in a County or City, that the following would be generated by these new employees:

..... 359 more people
..... 91 more school children
..... 100 more households
..... $229,000 more in bank deposits
..... $710,000 more personal income per year
..... 97 more passenger cars
..... 65 more people employed in non-manufacturing jobs
..... 3 more retail establishments
..... $331,000 more retail sales per year

These figures are averaged; however, where the manufacturing employment is compiled of professional and skilled employees, such as in Conover's case, these figures could be somewhat higher. Consequently, with the influx of high-paying jobs, these statistics can and will increase geometrically. They are presented here to Conover's citizens as an idea of what can be generated, locally, when adding new employees or attracting a new industry to their Community.

From Table 7, it is apparent that furniture manufacturing is by far the most developed industry in the City, accounting for almost 60 percent of the total employed persons. Furniture, textile, and wholesale-retail trades, are the largest employers in the Community.

Income

Family income is an excellent indicator of a community's economic strength, showing whether the citizens have the financial resources to purchase the necessities of life. i.e., food, clothing, medical care, schooling, transportation needs, and shelter. Family income is also an excellent index to the distribution of income, locally, throughout the Community. An especially useful breakdown of income figures is that of median and mean incomes. The median family income is a figure above and below which there is an equal number of income figures; the mean family income is that figure occupying the exact middle position among all the income figures.

Table 8 illustrates 1969 incomes for families and unrelated individuals in Conover. According to the 1970 Census, the income data shown in this table, reveals that only 2.0 percent (19 families) are classified as having incomes below the poverty level. The City's median income is $11,229, and its mean income is $12,056. Approximately 40.5 percent of all families earned incomes under $10,000, and the majority earned over $10,000. In fact, about 24 percent of the City's families have a yearly income of around $15,000; another 16.6 percent (154 families)

have a yearly income averaging anywhere from $15,000 to $25,000 to $50,000.

As can be seen from the data in this Table, the City of Conover is an area in which few inhabitants are classified as being at or below the poverty level.

Table 8

INCOME OF FAMILIES AND UNRELATED INDIVIDUALS FOR CONOVER, N.C. - 1969

Family Income	Number of Families	Percent of Total
All Families	929	100.0
$1,000 - $1,999	4	.4
$2,000 - $2,999	14	1.5
$3,000 - $3,999	26	2.8
$4,000 - $4,999	31	3.3
$5,000 - $5,999	31	3.3
$6,000 - $6,999	62	6.7
$7,000 - $7,999	73	7.9
$8,000 - $8,999	62	6.7
$9,000 - $9,999	73	7.9
$10,000 - $11,999	144	15.5
$12,000 - $14,999	222	23.9
$15,000 - $24,999	154	16.6
$25,000 - $49,999	29	3.1
$50,000 or more	4	.4
Median Income	$11,229	
Per Capita Income	$12,056	
*Percent of families with income below poverty level	$ 3,475 2.0% (19 families)	

*Excludes inmates of institutions and members of the armed forces living in barracks, college students in dormitories, and unrelated individuals under 14 years.

Source: U.S. Bureau of Census, 1970.

In a recent Public Improvements Program and Capital Improvements Budget for the Conover community, it was shown that the City occupies a sound financial position withregard to total revenues. For instance, in 1960, Conover had a population of 2,281, with total revenues of $144,423, or about $63.31 per capita. Today, the

City has a population of around 3,558, with total revenues of $1,042,632, which includes inter-fund transfers, or about $293.04 per capita. This reflects a 78.4 percent increase in per capita income from the early 60's.

The assessed valuation of taxable real property is another measure of the Community's economic strength and soundness. In 1976, Conover's assessed valuation of taxable real property amounted to $67.6 million, or about $18,999 per capita. In light of these figures, Conover can be considered fairly wealthy, ranking high in the material well-being of its citizens.

Worker Availability

Table 9 gives November, 1977 data of worker availability in a 25-mile commuting radius of the Newton-Conover area (see Map 6), approximately 30 to 40 minutes driving time. The area includes the whole of Catawba County, and portions of Alexander, Burke, Caldwell, Cleveland, Gaston, Iredell and Lincoln Counties. Located within the defined area are only those workers who have filed applications for jobs with the N.C. Employment Security Commission office. Additional workers also can be recruited, such as housewives, persons now commuting out of the area, etc. According to 1970 census data, 251,420 persons reside within 25 miles of the Conover-Newton area.

Table 9

NUMBER OF REGISTERED JOB APPLICANTS RESIDING WITHIN AREA - 1977

Miles	Persons Registered			With Substantial Work Experience		With Limited or No Work Experience	
	Total	Male	Female	Male	Female	Male	Female
0-15	3566	1631	1935	1538	1756	93	179
15-20	1843	866	977	840	927	26	50
20-25	2524	1176	1348	1122	1253	54	95
Total	7933	3673	4260	3500	3936	173	324

Source: N.C. Employment Security Commission, November 10, 1977.
Prepared from October Data.

ESTIMATE OF RECRUITABLE WORKERS FOR THE NEWTON-CONOVER AREA

Recruiting Area: 25 miles Radius (road miles) from site in or near Newton-Conover

Population of encircled area: 251,420 - 1970 census

There are approximately 8,000 persons who are available for employment in the encircled area.

Area: Newton-Conover, North Carolina 1/ November 10, 1977

October Data

15 Road Miles

20 Road Miles

25 Road Miles

1/ The whole of: Catawba County MAP NO. 6

Portions of: Alexander, Burke, Caldwell, Cleveland, Gaston, Iredell and Lincoln Counties

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Source: N.C. Employment Security Commission, November 10, 1977.

Table 9 shows there is almost a total of 8,000 persons who are available for employment within the recruitable area. The majority of these are female workers with substantial work experience. The N.C. Employment Security Commission has estimated that within the designated area, there were 1,462 high school graduates who continued their education or who did not seek employment.

Table 10 shows the major occupational classification of the job applicants who are available for employment. Of the total workers available within the 25-mile radius, 53.4 percent are female, and the majority of these are skilled in clerical and sales-related types of work. A higher percentage of male workers are more skilled in their professions than females. The majority of the skilled workers have their experience in machine trades and bench-type work, associated with furniture and machine trades, such as in textiles-related types of work.

Table 10

MAJOR OCCUPATIONAL CLASS OF JOB APPLICANTS, 1977

	Total	Prof., Tech., and Managerial	Clerical And Sales	Service	Farming, fish., and Forrestry	Processing
Male	3673	470	395	225	35	114
Female	4260	316	1279	509	5	102
Total	7933	786	1674	734	40	216

	Machine Trades	Bench Work	Structural Work	Misc. Occupations	Partials
Male	615	335	502	747	235
Female	762	785	12	185	305
Total	1377	1120	514	932	540

Source: N.C. Employment Security Commission, November 10, 1977.

PART II

LAND USE SURVEY AND ANALYSIS

The information obtained in this section of the report was gathered in a January 1977 land use survey of the Conover planning area, which consists of the Corporate limits and the City's one-mile extraterritorial area.

The Conover Planning Area contains approximately 10.4 square miles of land, with the corporate limits area occupying 2.2 square miles of this land. A discussion of development patterns and problems will be presented relating to each of the major classifications and various subclassifications of existing land uses. Map 7 illustrates the generalized existing land use and Table 11 gives a detailed breakdown of existing uses by developed acreage devoted to the land uses in the corporate limits area and the one-mile extraterritorial area.

LAND USE CLASSIFICATION SYSTEM

Residential

Single-family houses, duplexes, two family dwellings, multi-family dwellings, and mobile homes.

Manufacturing

Manufacturing plants, processing, milling.

Transportation, communication, utilities

Rail, truck terminal, airport, highway right-of-way, automobile parking, communication, utilities.

Trade

Wholesale and retail trade, commercial businesses offering tangible goods for sale.

Services

Commercial businesses offering intangible goods for sale. Example: banks, dry cleaners, insurance, also governmental service.

Cultural, entertainment, recreation

Libraries, historic monuments, parks.

Resource, production and extrative, and undeveloped land and water areas

Agriculture, vacant land, etc.

Source: Standard Land Use Coding Manual, D.O.T., B.P.R., Washington, D.C., 1959, pp. 29031

Table 11

CONOVER, N.C. PLANNING AREA LAND USE - ACREAGE & PERCENTAGES, 1977

Land Use Classification	Acres	% of Total	Acres	% of Total	Acres	% of Total
	Corporate Limits Area		One-mile Extraterritorial Area		Total Planning	
Residential:	211.2	14.9	302.7	5.7	513.9	7.8
one family	195.4		243.0		438.4	
two-family	10.3		3.2		13.5	
multi-family	4.5		----		4.5	
mobile home	1.0		56.5		57.5	
Trade:	36.1	2.5	16.0	0.3	52.1	0.8
retail trade	21.7		9.6		31.3	
wholesale trade	14.4		6.4		20.8	
Service:	42.5	3.0	26.9	0.5	69.4	1.[illegible]
non-government	31.5		4.4		35.9	
government	11.0		22.5		33.5	
Cultural Entertainments Recreation:	8.0	0.5	20.2	0.4	28.2	0.4
non-government	.5		20.2		2.2	
government	7.5				7.5	
Trans.,Comm.,& Utilities	210.2	14.7	274.9	5.3	485.1	7.4
non-government	23.2		28.1		51.3	
government	187.0		246.8		433.8	
Manufacturing	122.3	8.6	93.6	1.8	215.9	3.2
Total Developed	630.3	44.2	734.3	14.0	1,364.6	20.6
Undeveloped Vacant Agriculture	793.6	55.8	4,492.7	86.0	5,286.3	79.4
Total Acres	1,423.9	100.0	5,227.0	100.0	6,650.9	100.0

Source: Western Piedmont Council of Governments, 1977.

CONOVER EXISTING LAND USE

drawn by denise riddle

Map No. 7

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

The general land use classifications are treated separately here. A commentary will be made on distribution, amounts in acreage and percentage, as well as any major land use problems. Map 7 illustrates the existing land uses for the City of Conover and its one-mile extraterritorial area.

RESIDENTIAL LAND USE

Residential land in Conover is the predominant land use for developed lands. Residential land use occupies about 14.9 percent of the developed land within the City and about 5.7 percent with the one-mile perimeter area. For the most part, residential growth patterns have taken place in the northwest, northeast and southeast sections within the Planning Area.

The land use survey that was conducted in August and September of 1971 by the Division of Community Services showed the City having a total of 917 dwelling units in the coporate area and 433 dwelling units in the one-mile extraterritorial area, for a grand total of 1,174 dwelling units; whereas, today the City has a total of 1,023 dwelling units in the City itself and 540 dwelling units in the one-mile extraterritorial area, for a grand total of 1,563 dwelling units. As can be seen from these dwelling counts, Conover has increased its residential growth substantially.

Since the 1871 survey of the City, Conover has experienced some strong growth in the construction of two family and multi-family dwellings. For instance, there has been four additional six-unit apartments constructed in the Planning Area since the last survey. Four of these new complexes were constructed in the northwest, off the County Home Road in Lyle Haven.

The L'Echo Park subdivision alone, in the northeast has had 31 new single

family dwelling units constructed since the 1971 survey. In the southwest section of the City, 26 new FmHA single-family dwellings were constructed in the Zion Hill area.

Subdivision development has primarily occured in three specific areas in the community: adjacent to northeast of the original L'Echo Park development, in the northwestern adjacent County Home Road (S.R. 1484), and south of the intersection of U.S. 64-70 and 7th Avenue.

The 1977 land use survey and dwelling units count presented in Table 12 shows that the City and its planning area have gained 213 new residential dwelling units in about 6 years. This is the equivalent of about 36 dwelling units per year, even when considering that the state and county had little building construction during late 1974 through 1975. Further information and building statistics concerning this section is compiled in the City's Housing Survey.

Mobile Homes

Mobile homes are increasingly playing an important role in supplying low cost housing to the Conover area. The 1977 land use survey showed there were a total of 203 mobile homes in the Planning Area. Of this total the majority (198) are located outside the City limits in the one-mile extraterritorial area. There were only 5 mobile homes located in the City, as non-conforming uses and these were located in the southwest section of the City in a low and moderate income area along 4th Street Place, S.W., 2nd Street, S.W., and 6th Avenue Drive, S.W. At the time of the land use survey, mobile homes comprised approximately 13 percent of the community's total housing. As a residence, a mobile home is small, compact, efficient and somewhat inexpensive; and, as such, it deserves a place within the City's forthcoming land development plan, and the City's regulator laws should recognize them as needed housing in the community.

The Conover area is known as the "Bedroom of Catawba County" and as such, the citizens of the community take great pride in their community and homes. Low cost housing, apartments, and mobile homes are not encouraged locally due to this image that the citizens want to project and preserve for their community.

Mixed Land Uses

Mixed land uses, such as commercial and industrial uses, have a tendency to lower property values and create maintenance problems for adjoining residential properties. For example, the properties located along N. C. Highway 16 and along 4th Street S. W., as well as those which parallel the Southern Railroad tracks, show definite signs of deterioration. A section of the southwest area of Conover, in which low and moderate income families reside, is boxed in on the northwest by the Trendline Manufacturing plant, and on the southwest by the Conover Chair Company. This particular area is one of the least desirable places in which to live in the community. This section of the City is one in which a concentrated planning effort is being made by the City to upgrade in the near future. The City has applied for Federal funds through the Bureau of Outdoor Recreation, Department of Commerce, and through the Department of Housing and Urban Development for community development funds in order to upgrade this area.

In the one-mile fringe area, mixed land uses were not a factor contributing to blight, as was found to be inside the more densely settled corporate area.

Densities

Density patterns for the City are good; there is really no overcrowding of the land. Some of the older sections of the City, particularly, the

southwest section previously mentioned have some lots which are quite small by today's standard of at least one-fourth to one half acre lot sizes. Some lots in the southwest of the City average anywhere from 4,000 to 8,000 square feet. This particular problem was brought forth in Conover's Housing Survey and Analysis Report, published June, 1977, by the Western Piedmont Council of Governments. The land use survey showed that the average density for Conover is 1.7 housing units per acre of residentially developed land, and approximately 2.0 housing units per acre of residentially developed land in the one-mile extraterritorial area.

Available Growth Areas

Approximately 56 percent of the land inside the City limits is undeveloped and about 86 percent of the one-mile extraterritorial area is undeveloped. Sometimes manmade facilities, i.e., roads and railroads, can act as barriers to growth in certain areas. However, they can be overcome with good utility and facility planning in the future. The Southern Railroad tracks divides the City into two sections, a northern and southern. Interstate 40 cuts the northern section of the City's Planning Area off from the rest of the area. N. C. Highway 16, which runs on a north-south axis through the center of the community, hampers growth and makes for congestion in the central part of the City.

The above manmade barriers do in some cases hamper growth, but they also attract and encourage commercial and industrial land uses to the Planning Area. The railroad has not seriously hurt the City, but it has created traffic problems for the City during certain peak traffic hours when a train blocks the main thoroughfare (N. C. 16) through the City. The City and its Planning Area is experiencing some residential sprawl and

some small "leap frog" development along the County Home Road and east of the City along U.S. 70. Prime residential land is in abundance throughout the Planning Area. Interstate 40 and the Conover industrial park areas toward the east and west will definitely encourage expansion to the west, northwest and northeast. Prime vacant land exists behind the YMCA south of 1st Street S.E., which has excellent potential for residential development during the next ten to twenty years. The topography throughout the Conover Planning Area is conducive to residential developments, with slopes in the desired range of 5 to 15 percent where a variety of housing can be constructed.

Structural Conditions

Since this subject was throughly covered in a recent Housing Survey and Analysis Report, June 1977, on the community, a brief analysis will only be given here. Structural conditions of housing was classified into three main categories. They are listed below with a short definition of each type:

Standard	Housing which is in sound structural condition and needs no major repair.
Deteriorated	Housing which is still structurally sound but which is in need of major repair to prevent full deterioration.
Dilapidated	Housing which is structurally unsound and which is economically beyond conserving.

A complete inventory of housing in the Planning Area was conducted in January of 1977 and the results are provided in Table 12. This table illustrates that the City has greatly improved the conditions of its housing stock over the 1971 land use survey report, which recorded the City's housing conditions. In summary, when deteriorated and dilapidated dwelling units are combined to indicate

Table 12

CONDITION OF EXTERIOR RESIDENTIAL DWELLING UNITS FOR CONOVER, N.C. 1977

Classification	Incorporated Area						One-Mile Fringe Area						Total Planning Area					
	S-F	T-F	M-F	M-H	TOTAL	% of TOTAL	S-F	T-F	M-F	M-H-	TOTAL	% of TOTAL	S-F	T-F	M-F	M-H	TOTAL	% of TOTAL
STANDARD	885	49	20*	2	956	93.4	295	6	--	192	493	91.3	1,180	55	20	194	1,449	92.7
DETERIORATED	52	1	2**	3	58	5.7	29	--	--	6	35	6.5	81	1	2	9	93	6.0
DILAPIDATED	9	--	--	--	9	0.9	11	1	--	--	12	2.2	20	1	--	--	21	1.3
TOTAL	946	50	22	5	1,023	100.0	335	7	--	198	540	100.0	1,281	57	22	203	1,563	100.0

Note: S-F = Single Family
T-F = Two Family
M-F = Multi-Family
M-H = Mobile Home

* three 3 units
eight 4 units
nine 6 units

** one 3 unit
one 4 unit

Source: Western Piedmont Council of Governments, January 1977.

the number and percent of substandard dwelling units, the City and its one-mile extraterritorial area shows great improvements. Today, substandard housing comprises only 6.6 percent of Conover's total housing, as compared to 8.5 percent in 1971.

If the reader wishes further information regarding this section of the report, reference is made to Chapter III Existing Housing Conditions pp. 14-22 of the Conover N. C. Housing Survey and Analysis Report, published June 1977 by the Western Piedmont Council of Governments.

Residential Land Use Problems

1. There are some poorly platted subdivisions within the southwest section of the City.

2. Deadend streets with no turn-around space - reference to 2nd Street Place, S.W. and 2nd Street S. W.

3. Substandard accessory structures on quite a few residential lots, particularly in the southwest and southeast sections of the City.

4. Lack of low-income housing (including apartments and two family units).

5. Poorly platted streets which do not tie directly into other subdivisions in the same general vinicity.

6. Lack of adequate buffering between the Southern Railroad - the industrial areas and the adjacent residential areas in the southwest section of the City.

7. The need for constructing curb and gutters in the southwest section of the City.

8. Lack of side walks near churches and schools, as well as the lack of them in the nicer residential areas of the community.

9. Existing roads in some sections in the southwest have inadequate subbase and are too narrow.

10. Some sections within the southwest have inadequate water facilities - water systems are not looped for adequate pressure and many existing water lines are 2 and 4 inch lines which do not afford the residential areas adequate fire protection.

Recommendations

1. Inaugurate a community improvement program for the southwest section of the City.

2. Establish "buffers" between residential and non-residential property - particularly when adjoining properties are rezoned to other commercial or industrial classifications.

3. Encourage private developers to build some Section 8 Housing within the southwest section of the City.

4. Make improvements within the southwest section of the City, i.e. water, sewer, streets, which could open up additional land for development for low income housing.

5. The City should adopt a minimum housing ordinance.

COMMERCIAL LAND USE

The majority of Conover's commercial uses are located primarily in two separate areas - one the Central Business District and the other along U.S. Hwy. 64-70 and 321, south of the City's southern border. The City of Conover has a few areas designated for commercial uses: the largest area is the City's Central Business District. This area represents the City's focal point of commerce, financial and governmental activities for the entire planning area.

Some 21.7 acres within the corporate area are used for retail trade; whereas, wholesale trade represents 14.4 acres or 2.3 percent of the total developed commercial acreage. Retail trade uses occupies 9.6 or 1.3 percent in the one-mile perimeter area.

Since the 1971 land use survey, the following new commercial establishments have been added to the community:

> A Realty Company, office space below Hunsucker Hardware, Nationwide Insurance Company, a Little General Store, Tire Recapping Company, Automobile Parts Supply Store, a McDonald's, a Hardees, a Bantom Chief, a Winn-Dixie, a Family Dollar Store, a Beauty Shop, H&M Tire Company, and a Mr. Zip Store.

All of the above commercial uses are located within the corporate limits. However, outside the City, in the one-mile perimeter area, there has only been four new commercial uses to locate in the area. These are: Jo Belle's a TV Sales-Repair Shop, a small shopping complex, and a fried chicken restaurant

"Spot" and "Strip Commercial Areas"

The period 1972 to 1978 continued to see the trend for strip commercial uses along U.S. Hwy. 64-70, and U.S. 321 to the West of Conover. Strip or "spot" commercial uses are ideal for some types of highway businesses, provided each commercial use has adequate setbacks from highway right-of-ways, access, and off-street parking spaces available for each commercial use. If these criteria are not considered in planning for the new commercial activities, then they can be a detriment to the City and the surrounding property owners.

Commercial Land Use Problems

1. Heavy traffic volumes in the Central Business District during certain peak traffic hours.
2. Poor traffic circulation within the central part of the City.
3. Inadequate off-street parking facilties within the central core area.
4. Railroad tracks dividing the central commercial area.
5. Lack of modernization of commercial establishments.
6. Railroad cars blocking traffic within the central core area.

Recommendations

1. N.C. Hwy. 16 should be relocated from the central part of the City - a by-pass needs to be build around the City.
2. There needs to be an underpass constructed under the railroad tracks so that traffic circulation can flow easier.
3. Substandard structures and non-commercial uses should be demolished.

4. The Central Business District should be enlarged for future growth.

5. Merchandising and promotional methods should be researched and improved upon to stimulate sales and improvements within the City's main shopping areas.

6. The Planning Board and City Council may want to study the feasibility of creating a mall type shopping and pedestrain plaza, with a one-way street type circulation system around the plaza area.

7. Discourage "spot" commercial areas from spreading through proper enforcement of the City's zoning ordinance.

SERVICE LAND USE

Service land uses are different from trade uses in that they perform some useful labor which may or may not produce some tangible commodity as a result from this labor. For example, a barber shop, doctor's office, lawyer office, a cleaners, etc. Service uses were analyzed as either non-governmental (private) or governmental.

The non-governmental services from 1971 to 1978 have not changed to any great extent. Such services as financial, personal, repair, professional and religious are about the same today as they were in 1971, except for the construction of a new bank in the Central Business District and a realty company along 1st Street east of Conover. The 1977 survey shows 42.5 acres or 3.0 percent of the total area of this category in the City and 26.9 acres (0.4 percent) in the one-mile fringe area surrounding the City.

Government services acreage in the Conover community has changed quite substantially since the 1971 Land Use Survey Report was compiled. The City of Conover has purchased additional land areas in the City for future expansion for governmental services. Also, additional land acreas were purchased for right-of-way easements for utilities.

In 1977, governmental services for the City occupied 11.0 acres or 1.2 percent of the total developed land. In the one-mile fringe area governmental services accounts for 22.5 acres or 3.0 percent of the total developed areas.

Service Land Use Problems

1. Lack of sufficient off street parking facilities in relation to service uses.

2. Access and egress to service establishments is a problem in the central core area.

3. Lack of service related facilties in the one-mile extraterritorial area.

4. Poor site selection for services.

Recommendations

1. Doctors, lawyers, barbers and other professionals need to give some consideration to where they locate their services in relation to other land uses and to the existing traffic patterns in the community.

CULTURAL ENTERTAINMENT AND RECREATION LAND USE

Under the non-governmental land use category there has been very little changes: the only major change under this category was the construction of the Catawba County YMCA building off U.S. 64-70 east of Conover. This building is used by the County citizens for meetings, cultural events, and for recreational uses. Non-governmental uses under cultural, entertainment, recreation consist of .5 acres of the total developed land.

Governmental uses under the cultural, entertainment, recreational land categories recorded a small change over the 1971 land survey report. Recreational lands are the main area where the figures have changed. The City has an option on a 2.5 acre park site in the southwest of Conover, off 3rd Avenue S.W., which the City hopes to purchase with matching BOR funds in the near future. Extraterrito-

rial acreages have remained the same for this category as they were in 1971. There are about 7.5 acres (0.5 percent) of the total developed land area devoted to cultural, entertainment and recreational type land uses in the planning area.

Cultural, Entertainment and Recreation Land Use Problems

1. A lack of entertainment centers in the planning area for the youth of the community. There is a need for baseball fields, swimming pools, tennis courts and an all-purpose building.

Recommendations

1. A stronger emphasis needs to be placed on public recreation in the community. Civic clubs and churches need to express the need and idea that the City should get involved in public recreation.

TRANSPORTATION, COMMUNICATION, AND UTILITIES

The Southern Railroad right-of-way accounted for the majority of the developed land use acreages under the non-governmental classification for these land uses, i.e. transporation, communication and utilities. Trucking facilities, parking spaces, and private utilities easement account for the majority of the greatest change in land use acreages since the 1971 survey. This category accounts for 485.1 acres of the total developed land or 35.7 percent.

Streets, roads, water and sewer rights-of-way account for the governmental land uses under this category. In the Conover city limits there are 210.2 acres or 33.2 percent of the total developed land occupied by transportation, communications and utilities land uses. In the extraterritorial area there are 274.9 acres or 38.0 percent of the total developed land used for this classification.

Transportation, Communication and Utilities Land Use Problems

The majority of the land use problems under this category are primarily

associated with the City's transportation system. Due to the closeness of Newton and the major thoroughfares, i.e. N.C. 16, U.S. 64-70, US 321, and I-40, as well as the Southern Railroad passing through the community, all have created special problems in regard to the flow of traffic.

Problems

1. Many streets and roads need widening, resurfacing, curbing, and sidewalks.

2. There are numerous awkward intersections within the Central Business District.

3. Residential subdivision platting practices has in the past caused some traffic circulation problems.

4. There is a lack of off-street parking within the Central Business District.

5. The on-street parking along U.S. Old 70 and N.C. 16 in the Central Business Area helps to create congestion and makes a poor situation hazardous.

6. There is a lack of adequate access to the Conover industrial park area.

Recommendations

1. Continue to work with N.C. DOT on implementing and improving the City's Thoroughfare Plans.

2. The City's Consulting Engineer's advice and recommendations should be followed in making local improvement under the Powell Bill Funds.

3. The enforcement of the two regulatory tools (subdivision and zoning) in bringing about improvements and making sure past mistakes are not repeated.

4. Opening-up, widening, and extending old streets in the planning area.

MANUFACTURING LAND USE

Manufacturing land use accounts for about 19.2 percent of the total developed acres within the corporate area; whereas, in the one-mile extraterritorial area manufacturing acreage amounts to 13.0 percent of the total land. The entire planning area has 16.0 percent of the developed lands in manufacturing acreage. The vast majority of the manufacturing land uses are located in close

proximity to the Southern Railroad right-of-way and between old Hwy. 70 and U.S. 64-70 and 321 west of Conover. There are several individual industries with substantial land holdings within the City area -- Broyhill Furniture Company being the largest. The 1977 survey indicated 122.3 acres inside the corporate limits and 94 acres in the one-mile fringe area are being used for manufacturing purposes.

The industrial park areas, east and west of the Conover corporate limits, have brought numerous industries to Catawba County and the Conover area.

Industrial activities within the city limits are concentrated around 4th Street Place, S.W., 3rd Street, S.E., Conover Boulevard (Hwy. 70) and along the Southern Railroad tracks.

Since the 1971 land use survey, there has been two new industries to locate in the Conover community. One was Conover Sportswear, located on 6th Avenue, N.E. and the other was Conover Foam and Fiber Company, located along 4th Street Place, S.W. Broyhill Industries in Conover, just this past year have expanded their lumber yard and stacking facilities along 2nd Avenue S.E.

The manufacturing plants located inside the City and near the Central Business District have created problems, i.e. traffic congestion, industrial parking in residential areas, mixed land uses, rundown, blighted buildings, etc; however, these manufacturing plants are obviously indispensable.

Manufacturing Land Use Problems

1. Heavy industrial traffic within the central core area.
2. Industrial employee parking problems.
3. Lack of proper utilities, such as water and sewer, in the one-mile extraterritorial area.
4. No buffers between industrial and residential uses.

5. Dependency upon two major industries for the City's livelihood.

6. Blighted residential dwellings around the industrial areas.

Recommendations

1. Make prime industrial sites more attractive by making the necessary utilities and services available to the sites.

2. Encourage manufacturing plants to provide for employee parking on their own lands.

3. Provide for an industrial underpass under the Southern railroad right-of-way into the northwest industrial park area.

4. Encourage the industrial plants to provide for buffers when making any plant expansion or requesting a rezoning change.

VACANT LAND AND FUTURE POTENTIAL

Open/vacant land is undeveloped either because of a lack of demand or the owners have no desire to sell or develop it at the present time. Approximately 80 percent of the entire planning area is undeveloped. In the city limits of Conover, there are approximately 790 acres of undeveloped land (55.5%); whereas, in the extraterritorial area there are 4,503.5 acres or 86.2 percent.

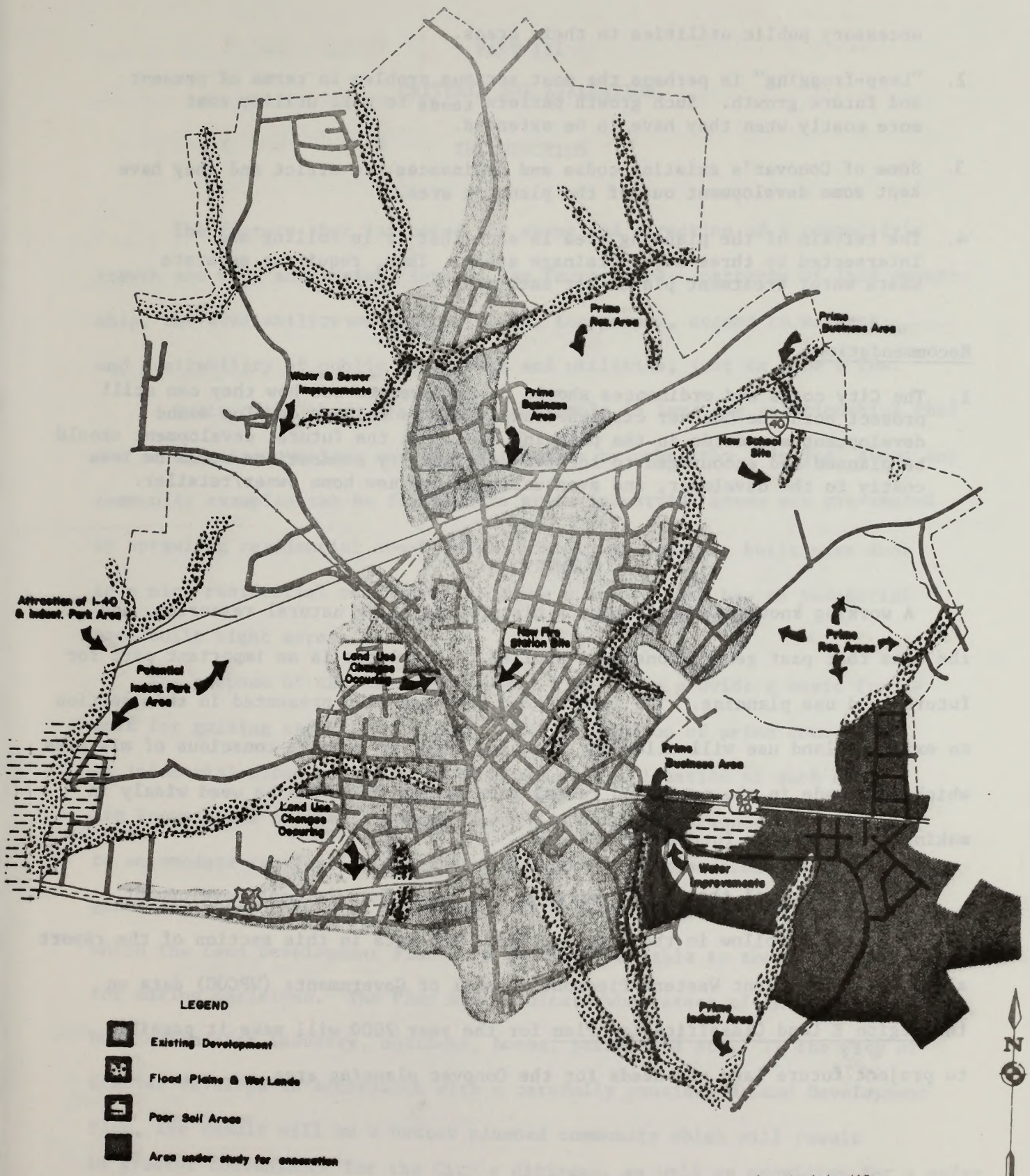
Geographical sections of the planning area which have limiting factors affecting growth are shown on Map 8. Some of these are poor soils, wet lands, flood plains, and lack of a public sewer system.

Also shown on this map are factors which tend to influence development; some of these are: prime residential, commercial and industrial areas located within a one-half mile radius of water and sewer facilities, the availability of public utilities and services, the attraction of Interstate 40 and the industrial park areas, and prime residential land near a new school site.

Vacant Land Use Problems

1. Prime industrial, commercial and residential lands do not have all the

GROWTH DEVELOPMENT FACTORS



drawn by denise riddle

Map No. 8

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

necessary public utilities to their areas.

2. "Leap-frogging" is perhaps the most serious problem in terms of present and future growth. Such growth pattern tends to make utility cost more costly when they have to be extended.

3. Some of Conover's existing codes and ordinances are strict and they have kept some development out of the planning area.

4. The terrain of the planning area is such that it is rolling and intersected by three major drainage areas. Thus, requiring separate waste water treatment plants for each area.

Recommendations

1. The City codes and ordinances should be reviewed to see how they can still protect both the Conover citizen (taxpayer), as well as develop sound development standards in the planning area. In the future, development should be planned and encouraged to locate where utility connections would be less costly to the developer, and eventually to the new home owner/retailer.

SUMMARY

A working knowledge of Conover's history, existing natural resources, and the uses that past generations have applied to the lands is an important part for future land use planning. The information that has been presented in this section on existing land use will allow the Planning Board to be more conscious of mistakes which were made in the past, and reveal information which can be used wisely in making decisions for future generations.

This section of the report serve as the basis for the Land Development Plan which will follow in the next section. The data in this section of the report along with the recent Western Piedmont Council of Governments (WPCOG) data on the Region E Land Classification Plan for the year 2000 will make it possible to project future land use needs for the Conover planning area.

PART III

CRITERIA FOR EVALUATION

INTRODUCTION

The factors that influence the shape and direction of a community's growth are many and varied. Some of the factors are: patterns of land ownership, the availability and price of land, topography, access to markets and availability of public facilities and utilities, just to name a few.

Quite often these factors can result in land use relationships that are at best inconvenient and at worst unsafe or unhealthy. In just about any community examples can be found where prime industrial areas are pre-empted by sprawling residential areas, where commercial uses are built next door to a nice residential neighborhood, where a school site has an industrial area built right across the street.

The purpose of the Land Development Plan is to provide a basic framework for guiding the City's growth. The pre-emption of prime commercial or industrial sites cannot be avoided unless the location of such sites are known ahead of time. Schools cannot be properly planned for and sited to accomodate residential neighborhoods and their streets unless it is known generally where they will be needed. This is the type of land use information which the Land Development Plan trys to make available to those in authority for making decisions. The Plan will indicate what areas of the city are best suited for industry, business, homes, parks, and etc. If the City of Conover develops in accordance with a carefully considered Land Development Plan, the result will be a better planned community which will result in greater convenience for the City's citizens, as well as providing for a safer and healthier living and working environment.

Based on a careful consideration of the growth factors at work in the city, the plan has grown out of a number of studies conducted by the Planning Board over the past several years. The next section will set the criteria for evaluation as well as establishing the city's planning goals.

Planning for the future is difficult, for one cannot foresee or plan for all the unexpected things that can take place. However, the following assumptions concerning the Conover Planning Area can be made:

1. Population growth will continue to increase at the present rate; approximately adding 60 people per year.

2. Local industries and small wholesalers will continue to expand and create additional jobs, approximately adding about 20 to 25 new employees per year.

3. Residential construction and mobile homes will continue to fill the gap in the housing supply; approximately adding about 43 new residential units per year.

4. The City of Conover will continue to exercise a progressive annexation policy.

5. The City of Conover will continue to strive for efficient government in terms of providing utilities and facilities to potential growth areas as set forth under the City's utility policies.

GOALS

Goals, based on past trends and problems recognized by the Planning Board, have been formulated for the City and its extraterritorial area in order to facilitate reasonable planned growth. In order to eliminate problems and encourage growth incentives, some of the City's goals are as follows:

1. Housing

   The elimination of the effects of any discrimination in housing based on race, color, religion, or national origin.

   The provision of an adequate supply of housing; a variety of housing types, and proximity of housing to jobs and daily activities.

The provision of a decent residential environment throughout the planning area by insuring that all housing receives a proper and equitable delivery of public facilities and services.

The encouragement of the upgrading of existing residential structures so that all housing in the area will be safe and sanitary.

The protection of areas best suited for future urban growth.

2. Trade and Services
The encouragement of the continued improvement of the City's existing central business districts.

The encouragement of the clustering of future highway-oriented and neighboring trade uses into convenient functional units.

3. Cultural, Entertainment, and Recreation
The provision of recreational facilities accessible to all residential neighborhoods.

4. Transportation, Communication and Utilities
The protection of major thoroughfares from strip commercial development.

The encouragement of the compact development of the area by discouraging large vacant gaps in the urbanized areas, thus reducing the costs of providing and maintaining streets and utilities.

Coordination of the varied patterns of land use with circulation routes and facilities required for the efficient movement of people, goods, and services within and through the planning area.

5. Manufacturing
The encouragement of a diversification of industrial types to achieve a more stable, prosperous, local economy.

The protection of well suited vacant land for future industrial growth.

6. Flood Plains
The restriction of the use of these hazardous areas to those land uses which will not impede the drainage of flood water from these areas.

7. Government
Continued and increased cooperation between local governmental units to avoid costly duplication of services.

Continued joint comprehensive planning efforts where economically and politically feasible.

LAND USE STANDARDS AND PRINCIPLES

Conover's community leaders are confronted with development decisions everyday. If these decisions are to result in a more aesthetic and economic urban environment, they must be based on a set of standards guiding proper community development. Each type of land use has its own set of planning principles and standards to which it should adhere. For purposes of this report, land use has been divided into five categories (residential, commercial and service, manufacturing, transportation and utilties, and cultural and recreational). Good community planning standards and principles for each classification are listed below:

Residential

Locational characteristics for this type of land should possess the following attributes:

1. Should be large enough to maintain its integrity as a residential area and to prevent encroachment of incompatible land uses.

2. Topography should have enough slope to give the land character, provide good drainage, and be free from the danger of flooding, but the slope should not exceed 15 percent.

3. Should have easy accessibility to employment, shopping, and cultural activities.

4. Protection should be provided to the area from heavy traffic and incompatible land uses.

5. Residential development should be encouraged within the City Limits to make use of existing undeveloped land and to insure that the extension of utilties will not be costly and unreasonable.

Commercial

Commercial land use in the planning area is being divided into two categories: the Central Business District and highway commercial developments. There are also businesses scattered in the residential areas, but no groupings that could be defined as a shopping center. However, principles and standards will be listed for neighborhood shopping centers.

The Central Business District should provide:

1. Adequate and separate circulation systems for vehicles and pedestrians.

2. Off-street parking and loading facilities.

3. Adequate land for green space as a means of buffering adjoining incompatible land uses.

Neighborhood shopping centers provide convenience goods such as foods, drugs, and personal services. Neighborhood shopping centers should contain the following qualities:

1. A site of sufficient area to serve the neighborhood and provide off-street parking space.

2. Ready accessibility by means of major thoroughfares.

3. Buildings should be grouped so as to operate as one functional unit.

4. Truck traffic and loading facilities should be separated from customer traffic.

Highway Business districts usually involve a variety of commercial enterprises located on major arteries. This type of development tends to decrease the traffic-carrying capacity of the street upon which it fronts. Highway commercial development should possess the following attributes:

1. Provide only those services necessary to the traveling public.

2. Be of sufficient size to provide off-street parking and have entrances and exists which do not impede traffic on the major transportation study.

3. Clustering of these units which is preferable to intermingling them with incompatible uses.

4. Buffer zones should be provided to protect incompatible land uses.

Manufacturing

The areas projected for industrial use should have the following attributes:

1. Sites located on land with a slope of preferably not more than five percent.

2. Near major transportation facilities such as highways, railroads and/or airports so as to provide access for employees and the distribution of materials and products.

3. Utilities of sufficient capacity.

4. Off-street loading facilities so as not to congest traffic on surrounding streets.

5. Adequate landscaping and buffer zones.

6. Off-street parking facilities and sufficient allowance for future plant expansion.

Transportation and Utilities

Streets

A brief definition of each type of street follows, and qualitative features are described:

1. Local Streets comprise those which are designed only to service the traffic volume of the local area involved. These areas may serve either residential, commercial, or industrial areas.

2. Collector Streets serve the function implied by their name. Land access should be a secondary function of collectors.

3. Arterials function to move traffic, and land access should be a secondary function of arterials.

4. Freeways are high speed roads that are access-free and have grade separation interchagnes. Freeways have only one function -- to carry traffic.

The circulation system of Conover should conform to the following basic principles:

1. Collector, artérial, or freeway-type arteries should follow the boundaries of residential neighborhoods rather than crossing them internally

2. The circulation system should be coordinated with those of adjoining cities and with the State system of highways.

3. Streets and rights-of-way should conform to the following standards:

	Right-of-Way	Pavement Width
Local Streets	50-60 feet	24-48 feet
Collector Streets	60-80 feet	40-48 feet
Arterial Streets	100-200 feet	48-60 feet
Freeways	200-400 feet	48-60 feet

4. Abutting property on major thoroughfares should be provided with marginal access roads, (such as along Interstate 40).

5. Major and secondary roads should be landscaped on both sides whenever possible.

Public Utilities

The qualitative aspects of public utilities change with increasing urbanization. Examples of these changes would be conversion from septic tanks to a public sewerage system and from wells to a municipal water system. Four major categories of public utilities will be discussed.

Water Supply

1. Water should be free from bacteriological and other contamination.

2. It should be clean, colorless, odorless, and pleasant to the taste and contain a moderate amount of soluble mineral substances.

3. Catchment areas and reservoirs should be reserved well in advance of required development.

4. The water distribution system should assure continuity of service for domestic, industrial and fire fighting purposes.

Refuse Disposal

1. Kinds and types of refuse to be collected should determine the type of refuse disposal unit utilized.

2. Careful selection of disposal sites will help in minimizing land use conflicts.

Sanitary and Storm Sewer

1. Sewerage systems should be provided where land is divided into lots of less than one acre.

2. The lines should be of sufficient size and stub outlets should be provided.

3. It is required to have both sanitary and storm sewers and not a "combined system".

4. Cooperation between governmental jurisdictions is desirable where gravity flow is influenced by the topography of several areas. (This is being accomplished under the 201 Plans).

5. Storm sewers should be designed and required so that infrequent storms will not result in flooding.

Electric Power and Gas

1. Along streets that are to be paved, it is desirable to install house connections from underground utility lines to the curb or to the rig of-way line before the street is surfaced.

2. Conductors should be placed in underground conduits, and adequate records should be kept of all underground facilities.

3. Adequate supply and distribution systems should be available for heavy industrial uses.

Cultural

1. Should be convenient and accessible to the people who use them. Uses serving the entire community should be centrally located.

2. Should be acquired in advance wherever practical. Also, sites should be adequate for expansion of the facility and for parking.

Beyond these two general criteria, it will be necessary to break down this category into its major components: (1) schools, (2) recreation, and (3) public buildings.

Schools

The North Carolina Department of Public Instruction, Division of School Planning, recommends the following minimum school site sizes:

	Students	Site in Acres
Elementary School	400 or less	10
One-half mile service area	500 to 600	12
	800 (max. size)	15
Secondary School	400 or less	12
Two-mile service area	500	14
	600	16
	800	20
	1,200	24
	1,400	28

Recreation

This category covers playgrounds, playfields, parks, and other open spaces. The following concepts should be adhered to in planning recreational areas:

1. The site should be properly sized and located for efficient operation and maintenance. It should be quiet, clean, safe, and protected from strong winds, heavy traffic, and undesirable developments.

2. Sites acquired in developed areas should entail the least demolition of buildings and dislocation of families.

3. Active recreation areas should be separated, either externally or internally, according to the age groups that will use them and be easily accessible to the public.

4. Recreational facilities should be combined with school facilities to serve as educational and recreational centers for neighborhood or groups of neighborhoods.

Public Buildings

This category includes those types of buildings used for the conduct of government and the furnishing of essential public services. They may be constructed and operated by city, county, state, or federal governments, or by a semi-public agency. Some of the qualitative requirements are as follows:

1. Location should be where they function effectively and yet fit into the general plan.

2. Central-type buildings, e.g., City Halls and libraries, should be accessible from all parts of the City.

3. The design layout should take into account the future growth of the services furnished, adequate parking, employee facilities, general utilities, public comfort, and aesthetic qualities.

PAST LAND DEVELOPMENT PLANS

In 1971 the State of North Carolina Department of Natural and Economic Resources, Division of Community Services, prepared a Land Development Plan for the City of Conover, which was based on an old 1959 Land Use Plan prepared by Traffic and Planning Associates of Hickory. When analyzing the proposed development patterns in these older plans, only residential and industrial uses show any significant increases. However minor commercial changes have occurred north of I-40 along U.S. Hwy. 16 and south of Conover along U.S. 64-70 and 321, West toward Hickory. Significant residential growth has occurred in the north and northeast of the planning area since the early sixty's. Industrial plants within the City have really not changed that much, but they have increased greatly in the two industrial park areas just outside the City on the east and west of Conover paralleling the Southern Railroad right-of-way and Old U.S. 70.

These old plans have served the City well in guiding future growth; however, for today they are outdated and they do not express the new land use demands being made within the planning area. As there are numerous unknown factors involved in the City's future, certain assumptions must be made so that policies can be formulated. These are:

--- Population will continue to increase in the future;

--- The City will continue to annex adjoining properties to increase its tax base;

--- Industrial and commercial growth will continue thereby providing needed employment in the Region.

--- Additional people, increases in employment will stimulate the construction industry for residential dwellings.

In accordance with these assumptions and standards set forth in the individual analysis, future land use proposals of the 1977 Land Use Element-Region E Land Classification Plan for 1975, 1985, and the year 2000, which was prepared by the Western Piedmont Council of Governments, were considered in projecting Conover's future land use needs.

LOCATION STANDARDS AND FUTURE SPACE REQUIREMENTS

The Western Piedmont Council of Governments (WPCOG) during this past year (1977-1978) had refined and updated the 1973-74 Region E Land Use Plan.

This process involved an accumulation and analysis of regional and local plans, revision of population and economic forecasts, and determination of housing needs. In this plan, Conover's present development patterns were reviewed and estimates of changes outlined for years 1985 and 2000. This data was weighed against prospects for growth in the State and nation to determine how the WPCOG member communities would change in the future. The Conover proportion of the projected land use acreage was taken into consideration when updating the City's Land Development Plan.

TABLE 13

Summary of Population Forecast
For the City of Conover, NC
1970-2000

Area	1970	1975	% Change	1985	% Change	2000	% Change
Conover, NC	3355	3658	303	4109	451	4773	664

SOURCE: 1977-78 Land Use Plan for Region E, by WPCOG, April, 1978.

TABLE 14

Summary of Employment in Developed Areas
By Place of Work For the City of Conover, NC--1970-2000

	1970	1975	% Change	1985	% Change	2000	% Change
Public Quasi-Public	162	186	24	231	45	261	30
Commercial	1003	1152	149	1429	277	1612	183
Industrial	2506	2600	94	2920	302	3281	361
Total	3671	3938	267	4580	624	5154	574

SOURCE: 1977-78 Land Use Plan for Region E by WPCOG, April 1978.

TABLE 15

Summary of Developed Area for the
City of Conover, NC--1970-2000

Area	Population			Households			1975 Resid. Acreage	Density DU/A	Assumed Density
	1975	1985	2000	1975	1985	2000			
Conover	3658	4109	4773	1253	1442	1705	713.00	1.7	2.0

SOURCE: 1977-78 Land Use Plan for Region E by WPCOG, April 1978.

TABLE 16

Summary of Residential Additions and Required Acreage
For the City of Conover, NC--1985 and 2000

Area	1985 Residential Additions	1985 Required Acreage	2000 Residential Additions	2000 Required Acreage
Conover	332	166	605	303

SOURCE: 1977-78 Land Use Plan for Region by WPCOG, April 1978.

The plan is based on the anticipated 2000 population of the Conover Planning Area which has been projected to a low 4,775 or to a high 6,300 people. It is evident that the following growth factors (trends) are taking place in the City's planning area.

- Residential lot sizes are increasing and will continue to do so.
- Modern industry is no longer concerned with multi-story construction. Available utilities on large, accessible sites with on-premise parking for employees is more essential.
- The need and demand for recreational areas is increasing and such areas will be developed within the vicinity of the urbanizing sections of the City.
- Modern trends for commercial development are being designed to appeal to the motoring public, thereby creating large shopping areas where parking is easily accessible and available.

The above listed trends make it apparent that land use projections based primarily on anticipated population increases cannot be considered all conclusive.

The land use survey which lists the existing land uses in acreage in the City's planning area, along with the Region E Updated Land Classification Plan for the corporate area, will allow the Planning Board to project future land use acreage that can be expected in the year 2000.

TABLE 17

Existing and Future Land Use Acres

For The City of Conover and It's One-Mile Extraterritorial Area

Land Use Category	Existing Land Use Acreage	Percent of Developed Land	Percent Used For Projected Short-Range 1985	Added Acres Projected For Year 1985 Short-Range Plan	Percent Used For Projected Long-Range Year 2000	Added Acres Projected For Year 2000 Long-Range Plan
Residential	513.9	37.6	40.0	176.0	37.0	298.0
Commercial	121.5	8.9	10.0	44.0	10.0	81.0
Manufacturing	215.9	15.9	20.0	88.0	18.0	145.0
Cultural/Recreation	28.2	2.1	5.0	22.0	10.0	81.0
Transportation and Utilities	485.1	35.5	25.0	110.00	25.0	201.0
Total	1,364.6	100.0	100.0	440.0	100.0	806.0

SOURCE: Western Piedmont Council of Governments and the Conover Planning Board, April 1978.

PART IV

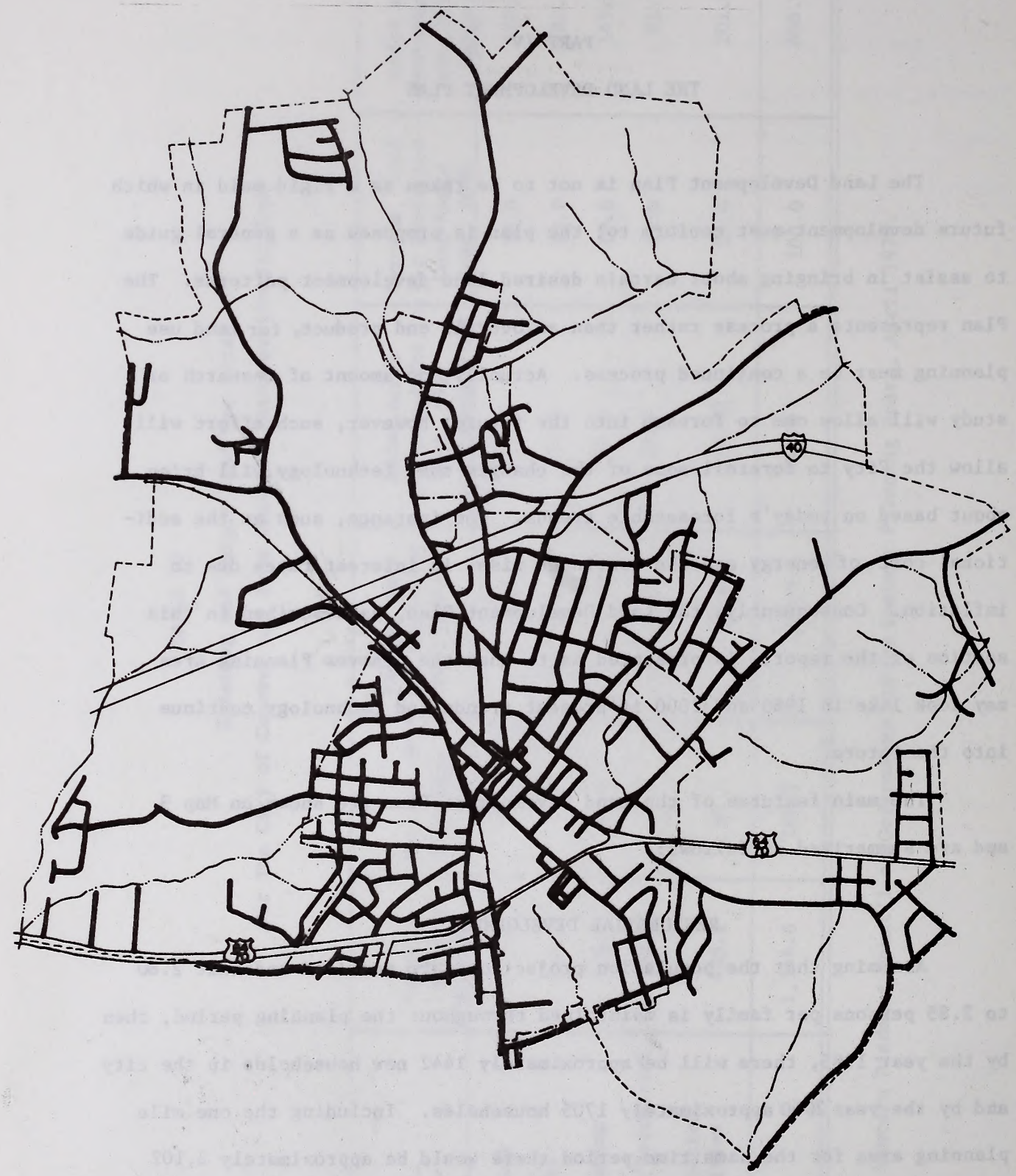
THE LAND DEVELOPMENT PLAN

The Land Development Plan is not to be taken as a rigid mold in which future development must conform to; the plan is proposed as a general guide to assist in bringing about certain desired land development patterns. The Plan represents a process rather than an overall end product, for land use planning must be a continued process. Actually, no amount of research or study will allow one to foresee into the future; however, such effort will allow the City to foretell some of the changes that technology will bring about based on today's foreseeable trends. For instance, such as the additional cost of energy and the continued rise in interest rates due to inflation. Consequently, the Land Development Plan, as described in this section of the report, is presented as to what the Conover Planning Area may look like in 1985 and 2000 if present trends and technology continue into the future.

The main features of the Land Development Plan are shown on Map 9 and are summarized as follows:

RESIDENTIAL DEVELOPMENT

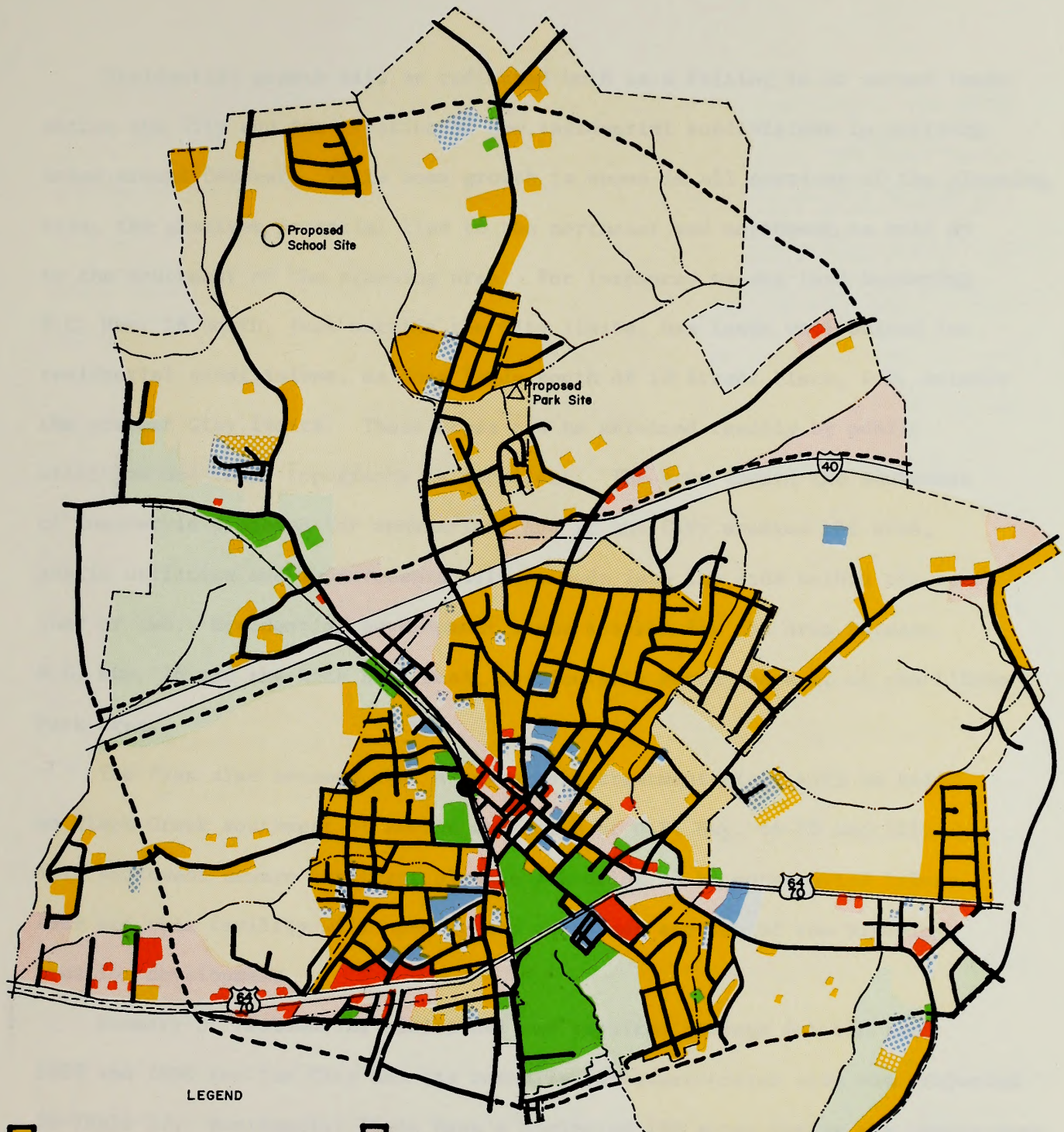
Assuming that the population projections are realized and that 2.80 to 2.85 persons per family is maintained throughout the planning period, then by the year 1985, there will be approximately 1442 new households in the city and by the year 2000 approximately 1705 households. Including the one mile planning area for the same time period there would be approximately 2,102 new households for 1985 and 2,590 new households for the year 2000.



drawn by denise riddle

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

CONOVER PROPOSED LAND DEVELOPMENT PLAN



LEGEND

- Existing residential
- Prop. low density residential
- Prop. medium density "
- Prop. high density "
- Existing mobile home, multi-family
- Existing Commercial
- Prop. Underpass
- Prop. Commercial
- Existing industrial, manufacturing
- Prop. industrial, manufacturing
- Existing public, semi-public
- Prop. public, semi-public
- Prop. major thoroughfare

Map No. 9

N

drawn by denise riddle

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

Residential growth will be reflected both as a filling in of vacant lands within the City and the creation of new residential subdivisions in outlying areas around Conover. While some growth is shown in all sections of the planning area, the greatest potential lies to the northeast and northwest, as well as to the southeast of the planning area. For instance, vacant land bordering N.C. Hwy. 16 north, just outside the City limits, has lands well suited for residential subdivisions, as does lands south of 13 Street Place, S.E. outside the present City limits. These areas can be serviced readily by public utilities and their topography is excellent. The area toward the southeast of Conover is proposed for annexation, and if the City annexes the area, public utilities and improvements will be made into the area within the next year or two. Residential development seems assured for the area between N.C. Hwy. 16 and the Rock Barn Road, particularly north and east of the L'Echo Park area.

The Plan also assumes that a new sewage treatment plant will be built on Clark Creek southwest of Newton and south of U.S. Hwy. 64-70 and 321. This southwest sewage treatment plan is scheduled to be constructed before 1985 and this facility will open up the southwest section of the planning area for development.

Summary of residential additional and required acreage for the year 1985 and 2000 for the City and its one-mile extraterritorial area was projected in Table 17. Residential lands have a projected 298 acres during the twenty-year planning period. This assumed residential density of 2.0 dwelling units per acre.

The Adrian L. Shuford Elementary School located within Conover's one-mile planning area in the northeast off the Rock Barn Road will definitely influence residential development in this section of the planning area.

Sixty-four townhouses are proposed for development in the near future across from the L'Echo Park subdivision off the east side of the Rock Barn Road in this same general vicinity.

Apartment living is starting to become a stronger influence in the Conover community due to the affluence and attractiveness of the community. Most of the two family and multi-family units will still be concentrated around the central section of the City and in some of the older sections.

A major development factor determining the location for residential expansion is the availability of utilities with no cost to the City except for monitoring the systems and utility plant costs. Three types of residential developments are proposed for the planning period and these are as follows:

Low to Medium Density (Short-Range 1977-1985)

Residential areas of this type should be located near or close to the central part of the City. In the plan, such areas would be within the corporate limits with emphasis mainly on single and two family dwelling units. Minimum lot sizes should be 9,000 to 12,000 square feet.

Low to Medium Density (Long-Range 1977-2000)

Residential development during this time period should be located mainly inside the City limits where water or sewer facilities would be available. A minimum lot size of 12,000 to 15,000 square feet would be an adequate classification.

Low Density (Long-Range 1977-2000)

Residential development during this time period will primarily be outside the present corporate limits. New subdivision developments should be on a minimum lot size of 15,000 to 20,000 square feet. It is anticipated that public water maybe available during this time frame, however, private wells and septic tanks would be used in most developments.

COMMERCIAL DEVELOPMENT

Conover's planning area contains a total of 121 acres in commercial uses, such as retail, wholesale, entertainment and services, approximately 8.9 percent of the developed land. By 1985 Conover will need about 44.0 acres and by the year 2000 another 81.0 acres for commercial use.

Highway Business

The Land Development Plan indicates new highway businesses at several intersections of major thoroughfares. Some of these would be for the sale of convenience goods, such as food and drug stores, barber and beauty shops, and other such establishments which depend on nearby residential areas. Other highway businesses would cater to the motoring public by providing motels, restaurants, automobile service stations and similar services.

The locations shown on the plan for these commercial centers are generalized. They maybe located on one or the other side of a major thoroughfare, depending on topography, land ownership patterns, availability of utilities, etc. However, they should be located at or near the interesections of important streets for convenience of access.

The interchanges along Interstate 40 are prime potential for highway businesses. The Planning Board feels that most of the interchanges within the

Low Density (Long-Range 1977-2000)

Residential development during this time period will primarily be outside the present corporate limits. New subdivision developments should be on a minimum lot size of 15,000 to 20,000 square feet. It is anticipated that public water maybe available during this time frame, however, private wells and septic tanks would be used in most developments.

COMMERCIAL DEVELOPMENT

Conover's planning area contains a total of 121 acres in commercial uses, such as retail, wholesale, entertainment and services, approximately 5.5 percent of the developed land. By 1985 Conover will need about 44.0 acres and by the year 2000 another 81.0 acres for commercial use.

Highway Business

The Land Development Plan indicates new highway businesses at several intersections of major thoroughfares. Some of these would be for the sale of convenience goods, such as food and drug stores, barber and beauty shops, and other such establishments which depend on nearby residential areas. Other highway businesses would cater to the motoring public by providing motels, restaurants, automobile service stations and similar services.

The locations shown on the plan for these commercial centers are generalized. They maybe located on one or the other side of a major thoroughfare, depending on topography, land ownership patterns, availability of utilities, etc. However, they should be located at or near the intersections of important arteries for convenience of access.

The Interchanges along Interstate 40 are prime potential for highway businesses. The Planning Board feels that most of the interchanges within the

developed such areas. However, the plan has set forth a few neighborhood business areas in the planning area where the planning and zoning board feels there is a need for such. Some of the areas proposed for this type of development are:

1) A small section along the County Home Road, north of Conover.

2) The intersection of U.S. 70-64 and S.R. 1740, east of Conover.

3) A strip located along both sides of N.C. 16 just north of Conover, near Jo-Belles.

INDUSTRIAL DEVELOPMENT

The 1977 land use survey indicated that approximately 216 acres of land in the Conover planning area were being used for industrial purposes. The projected land needs for manufacturing uses for 1985 calls for about 88 acres and by the year 2000, another 145 acres will be needed.

The 1971 Land Development Plan adequately planned for the City's manufacturing uses. The Planning Board feels that the old Plan made ample provisions for industrial expansion. Therefore, the 1977 Plan will continue to keep the present planned industrial areas within the old 1971 Plan. The areas best suited for future manufacturing growth are:

Northwest of Conover, north of Interstate 40 and southeast of Old U.S. 70 (S.R. 1007). The southeast industrial park area is presently under study for future annexation to the City of Conover. This particular area is not served by public sewer, but will be if annexed into the City.

The northwestern industrial park area, as well as the southeastern industrial park area both have ample available land which have access to water, rail and transportation facilities.

In addition to these two large industrial park areas, the Plan enlarged several existing industrial areas along the right-of-way of the Southern Railroad tracks. Other outstanding areas for small site expansion have been shown extending from the vicinity of Old S.R. 1741 in the southeast. The majority of the industrial reserve area is set aside in these two general areas.

SOCIAL AND CULTURAL

In planning for social and cultural uses, i.e. schools, parks, governmental institutions and other institutional uses, it is necessary that they be compatible to residential areas and that their functions be able to accomodate the citizens of the community.

School Facilities

The City of Conover and its one-mile extraterritorial area is served by the Newton-Conover Administrative Unit. The Newton-Conover School District is administered by a six member Board of Education who oversee and operate eight schools, two of which are within the Conover planning area. The other six schools are within the Newton planning area. One of the two that is in the Conover area is the old Conover elementary school, which is now used as a special purpose childrens center. This school is located inside the city limits of Conover off 7th Street Place S.W. The other school is the Adrian L. Shuford Elementary School located in the City's one-mile planning area off the Rock Barn Road. According to a June 1974 Community Facilities Plan of the Newton-Conover area, both of these schools are meeting the community needs; however, only the Adrain L. Shuford Elementary School will be adequate until about 1985 when an addition may be needed. The Newton-Conover

Administrative Unit has plans for adding about eight new classrooms to the Conover Elementary School on 7th Street Place, S.W. Future plans call for the old elementary school building on this site to be demolished during the same time period.

By the year 1990, there may be a need for another elementary school, then the long term plans call for a site to be located in the northwest quadrant of Conover's one-mile planning area off the County Home Road. Such a site would contain a minimum 10 acres plus one acre for each 100 students. The Land Development Plan assumes that this site will be needed before 1990.

Parks and Recreation Areas

The National Recreation Association recommends that one acre of land for parks and recreation be made available for each 100 persons in a community. According to the 1977 estimated population of 3,558, Conover should have a total of 36 acres of land for parks and recreation. However, the 1977 Land Use Survey shows the planning area having only a total of 28 acres under this category. Of this total, 18.5 acres includes the private YMCA facility, and the rest includes the small parks, churches, and other non-governmental facilities in the planning area. The existing mini park (less than one acre in size) located on 2nd Street, S.W. and the lease park site (2.5 acres) off 4th Street Place S.W. in the Black community, are the physical public land areas for recreation. Even if all the 28 acres were used for recreation, Conover would still show a deficiency of at least 8 acres.

There are no public formalized recreational programs in the City, only private programs run by various churches. The need exists to develop public recreation in the community.

Recommended new park areas are shown by the diamond-shaped symbols on the Land Development Plan. Each is in a growth area or near an area of existing development. The City is presently trying to secure BOR funds to help purchase and develop the south west park.

The 1977 Plan proposes to add at least 7 acres by 1985 and another 14 acres by the year 2000 for recreational use. When put into effect, the plan for parks and recreation areas will provide opportunities for a variety of leisure-time activities, ranging from picnicing to active sports.

Pedestrian Way

According to the Land Use Survey and Analysis section of this report, there are numerous areas that are unsuitable for urban development due to soil limitations and wet lands along creek banks.

The Plan calls for the protection of these natural drainage ways and flood plains throughout the planning area. Areas along Lyle Creek would be particularly suitable for this type of use. Such an area could be used as a greenbelt and would afford a welcome relief from development as the City becomes urbanized in the future. If such a program was put into operation, the City would minimize its need for expensive storm sewers, which would be needed to replace these drainage areas.

Other Institutional and Governmental Uses

The Land Development Plan does not indicate sites for cemeteries, post offices, churches and other such institutional uses. Large institutional uses usually require special studies to determine their space and locational requirements. Churches generally follow the residential patterns of development and their precise location cannot be determined ahead of time. They too need to be researched and studied by their congregations to determine if the area can support another church.

UTILITIES

Water Distribution

An adequate supply of potable water is essential to the future development of the Conover community. The City purchases all of its water from the City of Hickory. The water system of the two communities are connected by means of a 20 inch main, built along Old U.S. 64-70 from Hickory to the Fairgrove Church Road and a 12 inch main from Fairgrove Church Road to Conover. Conover also has three wells (not any used) located within the City limits which are available to the City in case of an emergency.

The City of Hickory's present capacity for production of water is 16 Mgd; their storage capacity is 6 Mgd. At the present time, Conover bases its estimate of water available from Hickory on a continuous rate of 3,000 g.p.m., which equals 4.3 Mgd. The City of Conver has about 1300 water customers, using a daily average consumption of 275,000 gallons; however, in the summer months the consumption averages another 50,000 gallons. The City water system has over 28 miles of water mains with 185 fire hydrants and an overhead storage capacity of 1.2 MG.

The City also provides water service to a few water customers outside its corporate limits. This service is primarily confined to lines extended to the YMCA facility located east of Conover and lines extended along the main water transmission line from Hickory to service several industrial plants west of the City along Old U.S. 64-70.

Sufficient water is available from the City of Hickory to Conover for daily use as was presented under Part I of the Land Use Survey and Analysis section of this report (see Table 1).

The City of Conover is constantly upgrading its water lines and making improvements to the system by doing away with deadend lines and by looping the system wherever possible. The City recently adopted a water and sewer ordinance which requires high standards for upgrading its utilities. Water lines of less than six inches do not furnish the required amount of water or pressure for fighting fires. All two inch and four inch water lines are being upgraded to at least a six or eight inch line to afford the City adequate fire protection.

Map 10 illustrates the Conover existing water distribution system, storage facilities, and proposed water mains into the one-mile extraterritorial area toward the southeast and north of the City. By comparing this map with the eixisting Land Use Map and Land Development Plan, it can be seen that most of the developed area is presently served by the public water system and proposed future development as shown on the Land Development Plan is in a position to be served in the future by an expanded public water system.

In a recent Public Improvements Program and Capital Improvements Budget for the City of Conover, prepared by the Western Piedmont Council of Governments in June 1976, detailed information on future water and sewer line extensions were programmed. Listed below are future water lines that will be needed for orderly growth:

Proposed Water Lines

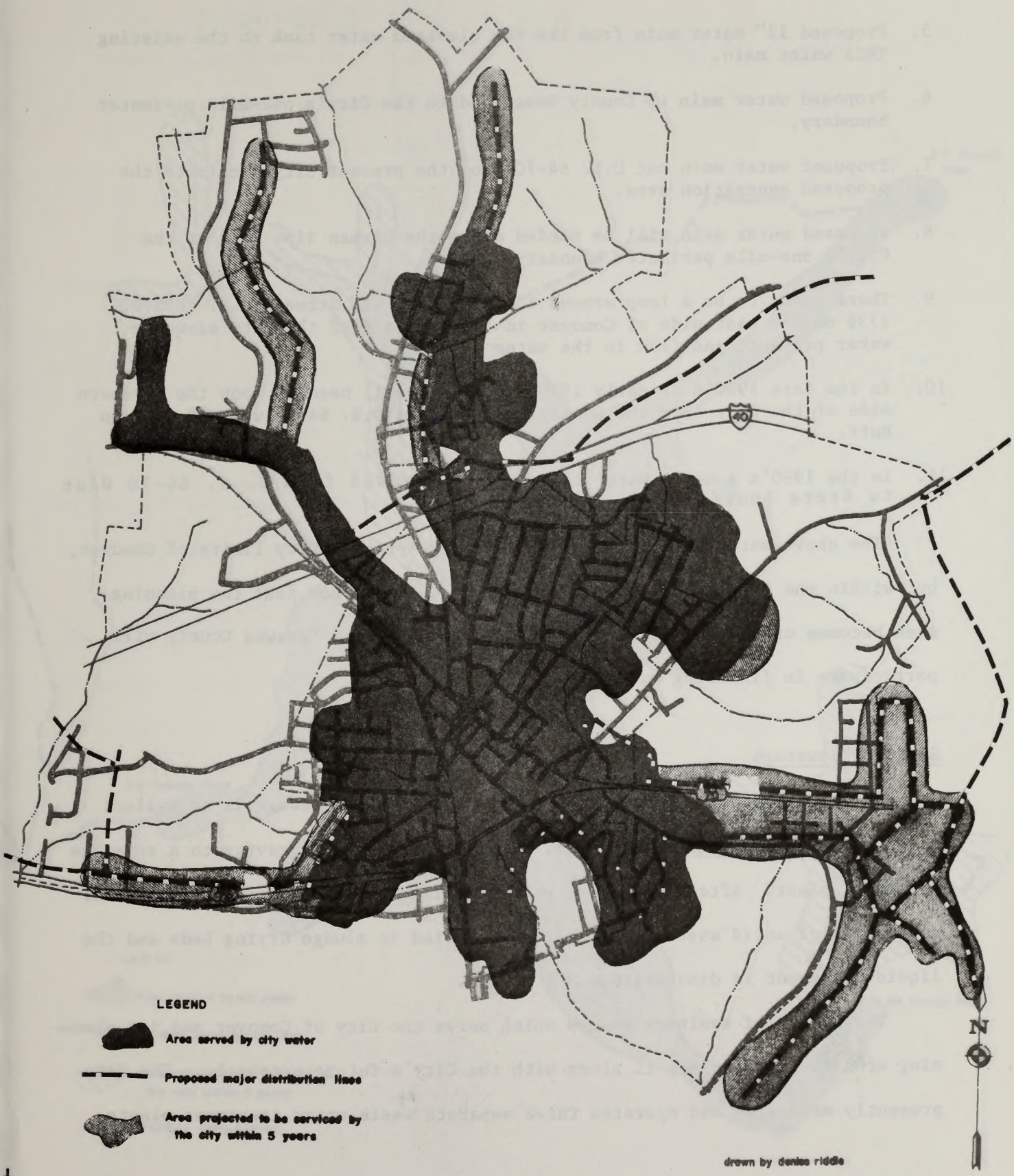
1. A proposed 12" water main up U.S. 64-70 to the Fairgrove Church area.

2. Proposed purchase and construction of various water mains in the area scheduled for annexation in the southeast of Conover.

3. Proposed water main from 8th Street under I-40 in existing casement to 10th Street, N.W.

4. The City will need to purchase from Catawba County a 12" water main along Section House Road to the one-mile extraterritorial boundary.

PROPOSED WATER DISTRIBUTION MAP



MAP NO. 10

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

5. Proposed 12" water main from the new elevated water tank to the existing YMCA water main.

6. Proposed water main up County Home Road to the City's one-mile perimeter boundary.

7. Proposed water main out U.S. 64-70 from the present City limits to the proposed annexation area.

8. Proposed water main will be needed along the Herman Sipe Road to the City's one-mile perimeter boundary.

9. There needs to be a loop around the City from 4th Street, S.W. to S.R. 1739 on the east side of Conover in order to afford the City adequate water pressure and flow in the water system.

10. In the late 1980's or early 1990's the City will need to loop the northern side of the City from the County Home Road to U.S. 64-70 west of Jackson Buff.

11. In the 1990's a major water main will be needed from U. S. 64-70 West to State Route 1479.

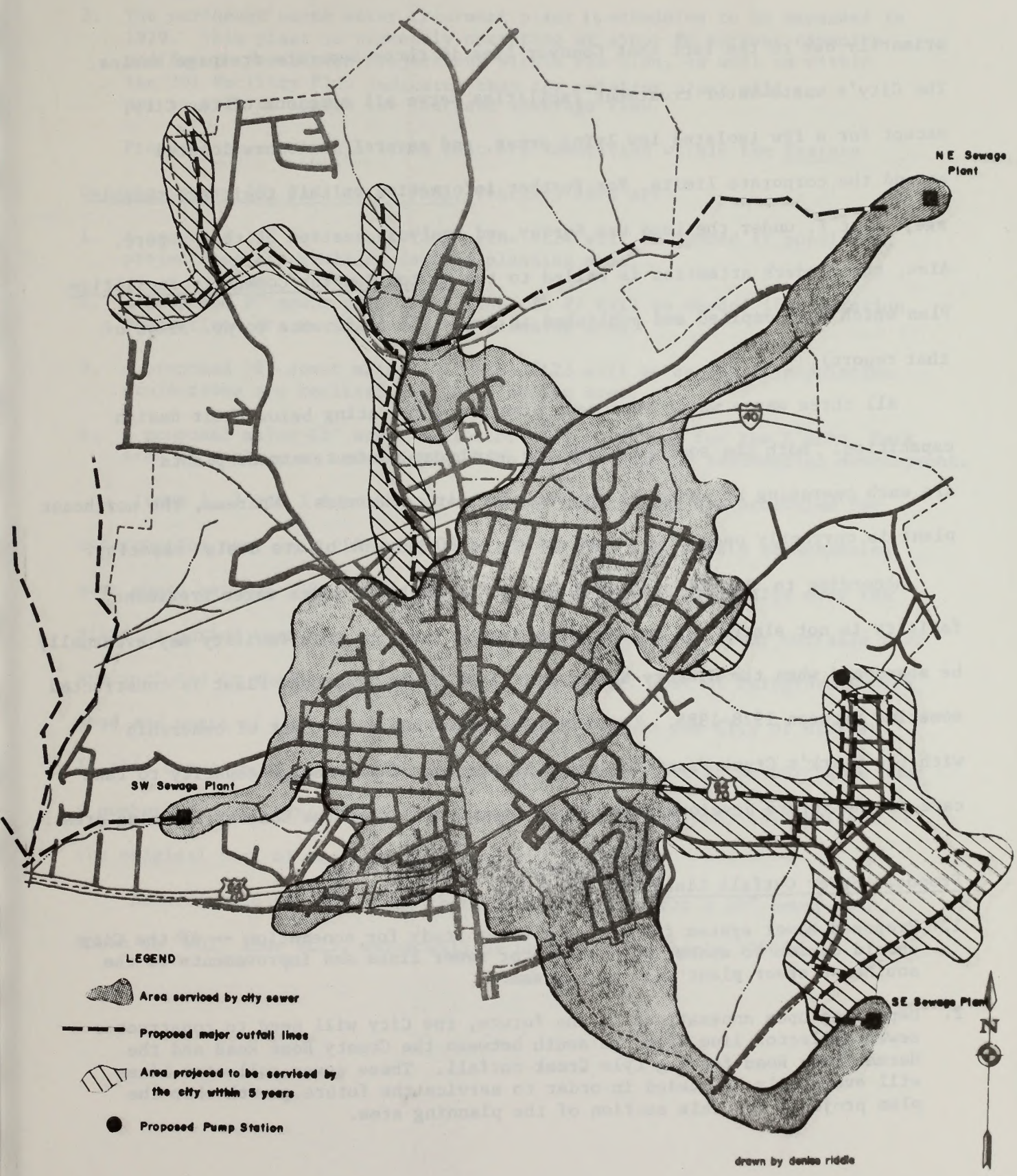
The above water mains proposed outside the present City limits of Conover, but within the City's planning area, will depend upon how fast the planning area becomes urbanized and whether the City annexes and Catawba County will participate in financing water lines with the City.

Sanitary Sewerage

The most sanitary and dependable way to dispose of sewage is to collect it in a system of underground pipes, where it can flow by gravity to a sewerage treatment plant. After treatment, which consists of mechanical and biological separation of solid wastes, the solids are dried in sludge drying beds and the liquid effleuent is discharged into a stream.

The system of sanitary sewers which serve the City of Conover and its planning area is shown on Map 11 along with the City's future proposals. The City presently maintains and operates three separate waste water treatment plants,

PROPOSED SANITARY WASTE TREATMENT FACILITIES MAP



MAP NO. II

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

primarily due to the fact that Conover lies in three separate drainage basins. The City's waste water treatment facilities serve all sections of the City, except for a few isolated low lying areas, and several customers located beyond the corporate limits. For further information on this topic see Sewerage, Part I, under the Land Use Survey and Analysis section of this report. Also, the reader's attention is called to the Newton-Conover Community Facilities Plan which was compiled and published in June 1974 (reference to pp. 39-40 of that report).

All three waste water treatment plants are operating below their design capacities. Both the southeast and the southwest waste treatment plants are each operating at about 50 percent of their capacities. Whereas, the northeast plant is currently operating at an estimated 80 percent of its design capacity.

According to the 201 plan, the Conover's southwest waste water treatment facility is not slated for improvements in the future. This facility may eventually be abandoned when the Hickory-Newton 201 Clark Creek Treatment Plant is constructed sometime between 1978-1985. The City of Conover has a contract of ownership with the Clark's Creek Plant for about 10 percent of its design capacity to take care of the future development in the western portion of the Conover planning area.

Proposed Sewer Outfall Lines

1. Proposed sewer system for the area under study for annexation -- if the City should decide to annex, then collector sewer lines and improvements to the southeast sewer plant will be necessary.

2. Depending upon annexations in the future, the City will need to construct a sewer collector line from the south between the County Home Road and the Herman Sipe Road feeding Lyle Creek outfall. These sewer collector lines will eventually be needed in order to service the future growth that the plan projects for this section of the planning area.

3. The northeast waste water treatment plant is scheduled to be expanded in 1979. This plant is presently operating at about 80 percent capacity and future population projections within the plan, as well as within the 201 Facility Plan indicates that the existing plant will not be able to handle the increase sewerage flow.

Proposed sewer outfall lines that are identified within the Eastern Catawba County 201 Facilities Plan, February 1976 are:

1. A proposed 15" sewer main "201" line #L24 will be needed if population projections are realized for the planning area.

2. A proposed 8" sewer main "201" line CIL #1 will be needed if population projections are realized for the planning area.

3. A proposed 12" sewer main "201" line #L23 will be needed if population projections are realized for the planning area.

4. A proposed major 15" sewer collector will be needed for the L'Echo Park area to replace an under-design line now serving the residential development.

Items 1, 2 and 3 from the above listed sewer mains are scheduled for construction next year (1979-1980). Item #4 will most likely be scheduled some where between 1982-1986. There is also a strong possibility over the planning period that the City may lease some of the major sewer outfalls that are included in the Hickory-Newton "201" Plan, i.e. most of Fairgrove Church Road and north of Lyle Haven at Section House Road to the City of Hickory. If this comes about, then certain sewer lines would have to be purchased over a number of years with Hickory or Catawba County paying only 12.5 percent of the original cost of the lines.

According to the 201 plans there will be a need for a 15" sewer main, known as "201" line #L25, which will be needed in the early 1990's.

THOROUGHFARE PLAN

There are numerous benefits to be derived from thoroughfare planning, with the main one being that the citizens will be able to utilize their urban streets for the purpose of moving themselves, as well as their goods and services. An integal part of the planning process is the long-range programming of the City streets and how they relate to the overall movement of traffic. The day-to-day functioning of Conover is dependent upon it's network of streets and roads.

It is essential that the City have a throughfare plan which is functional and one that can be programmed into the Capital Budget. The City's streets and roads are a vital part of its local economy; subsequently, they must be planned in conjunction with the entire planning area. There is a definite correlation between land uses and Conover's circulation system. The location of places of residence, businesses, industries, schools, churches, recreational areas and other social uses do and will continue to affect the City's circulation patterns. Consequently, Conover's throughfare plan must be integrated with the overall Land Development Plan.

Some of the major benefits to be drived from thoroughfare planning are:

1. A minimum amount of land will be required for street and highway purposes.
2. Each street can be designed for a particular purpose which leads to stability for traffic and land use patterns.
3. A substantial saving can be realized in street construction programs and street maintenance costs when streets are designed in advance for a particular purpose.

4. Conover and the North Carolina Department of Transportation officials can determine when improvements will be needed and can schedule funds accordingly.
5. School, park, library and fire officials can determine their needs and plan for the future with assurance of how land will be used and where and when streets will be constructed.
6. Interested local citizens can study the plan and determine whether or not a street will one day become a major traffic artery.
7. Land developers will be able to design their subdivisions so that streets within the subdivision will function in a non-conflicting manner with the overall plan.

Conover's thoroughfare plan was a joint effort with the City of Newton. The two cities official thoroughfare plan was adopted by both City Councils and by the N.C. DOT. Only portions of this plan have been implemented over the years. The old 1964 Thoroughfare Plan and the revised 1972 Plan have both been revised and kept up-to-date. This section of the report represents another overall review and updating along with the Land Development Plan. Since the thoroughfare plan represents a general guide to be used as a basis for all major street improvements over the next two decades, it must be reviewed periodically for the benefit of the community.

The thoroughfare plan overlaid on the Land Development Plan is a proposed modification of the 1972 Thoroughfare Plan. Basically the 1978 Plan is similar to the 1964 and revised 1972 Plan, except for some new access roads paralleling Interstate 40 and a relocated N.C.16 east of Conover. This new revised plan will be submitted to the Advance Planning Section of the N.C. DOT and will be used in preparing a revised thoroughfare plan for the community. Before discussing the plan, it may be helpful to explain the thoroughfare classification used.

The Concept of the Thoroughfare Plan

Conover's Thoroughfare Plan is based upon the following concepts:

1. A system of BYPASSES to divert all through national, state, and regional traffic around the City. Each through vehicle that is diverted from the central city permits one more city-destined vehicle to make use of the local street system. Bypasses may also serve the function of permitting local traffic to move from one area of the city to another without traveling through the central area.

2. A system of LOOPS which can move traffic from one area of the city to another without forcing it to make use of the congested business and industrial streets. This system may encompass some of the bypass routes, connecting them together into a continuous loop.

3. A system of major RADIAL streets, like the spokes of a wheel, move business and industrial traffic in an effective manner to and from the business, industrial, and residential areas.

4. A CROSSTOWN system which connects various sections of the community by means of continuous and direct streets. The crosstown system is the most fundamental part of the local street system as it diverts a very large portion of traffic from the Central Business District. Over fifty percent of the traffic in the Central Business District is local traffic which is trying to cross from one side of the City to the other. If this traffic can be diverted, it has the effect of increasing the functional capacity of the business area streets.

5. A system of COLLECTOR streets which "collect" traffic from the residential, business, or industrial areas and distributes that traffic to the MAJOR THOROUGHFARES, i.e. the bypass, the loop, and the crosstown.

6. The development of adequate OFF-STREET PARKING facilities to serve the shopping public and business employees. These off-street parking facilities are generally located in such a manner that they do not congest the business streets. In many cases, they are located adjacent to the crosstown or inner loop system.

Major Thoroughfares

Bypass: Major bypasses for the Conover community consist of U.S. 321, U.S. 64-70 and Interstate 40. The City of Conover has requested N.C. DOT to locate a bypass on the east side of the City for N.C. Hwy. 16 in order to relieve the traffic congestion on the north-south axis through the heart of the community.

Arterials: Recommended elimination of proposed new road linking intersection of S.R. 1734 and S.R. 1739 southeast of the City and looping the eastern quadrant of the City connecting with intersection of S.R. 1007 and Interstate 40.

A new access road is proposed along the northside of Interstate 40 using parts of existing local roads. This new access road would be a benefit to the community by opening up undeveloped land for development along Interstate 40. Also, a small section of access road is proposed along the southwest of Conover along the south side of I-40.

A new road is proposed to connect N.C. Hwy. 16, S.R. 1484, S.R. 1490 and S.R. 1491 (the development of this road should be coordinated with construction of a major sewer outfall in the Lyle Creek drainage basin).

State Road 1771 combined with S.R. 1714 and S.R. 1709 offer easy access from the southeastern industrial section to Interstate 40.

Collectors: Construction of a connector street from Second Street, S.W. to Third Street, S.W. in order to increase traffic, thereby reducing traffic congestion.

A proposed new underpass under the Southern Railroad tracks from Fourth Street, S.W. to Old Hwy. 70 has the approval of the N.C. DOT. Such a facility would open up the southwest section of the City to the industrial park area in the west, as well as, allow the fire department easy access to the area for fire emergencies. As the situation now stands, a train in the center of Conover can block N.C. Hwy. 16 and two other minor intersections (3rd Avenue, S.W. and 4th Avenue S.W.) all which are within one block of each other in the center of the City. A train across these streets would also block the safest and quickest route from the opposite direction for ambulances and other emergency

vehicles to the northeast, southeast and northwest sections of the City.

A proposed extension of S.R. 1673 and S.R. 1483 in order to assist traffic flow and to relieve traffic congestion.

A proposed extension of Tenth Street, N.W. to Old U.S. 70 in order to relieve traffic congestion in the northwest section of the City.

A proposed connector street to the cemetery in the southeast in order to provide access for future grave sites for the City.

With the construction and development of the above proposed streets and roads, the present and future residential, commercial, industrial areas, and cultural sites in the planning area will have easy access to other sections of the community. Map 12 illustrates the City's Thoroughfare Plan.

Recommended Procedures for Implementation

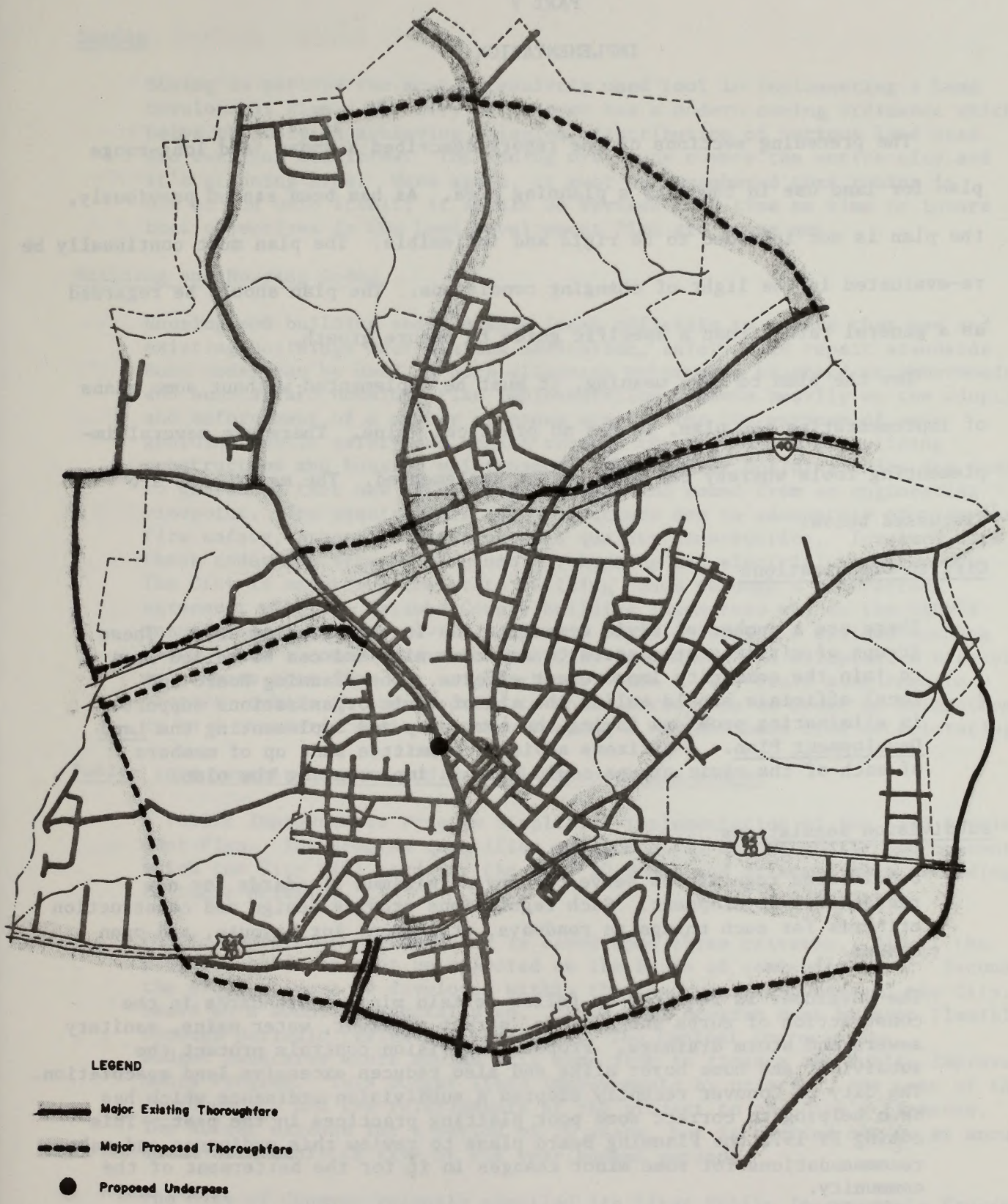
1. Program long-range improvements at such times that costs will be shared by the City and the State. (Reference to the City's Public Improvements and Capital Improvements Budget)

2. Budgeting of the City's funds should be made for the purchase of rights-of-way in areas where it will not be possible to obtain rights-of-way by dedication.

3. Require subdivision plats to conform with the Land Development Plan through subdivision regulations and dedicate necessary right-of-way.

4. Understand the Thoroughfare Plan and be aware of where and when necessary street widening and construction should occur.

PROPOSED THOROUGHFARE PLAN



drawn by denise riddle

Map No. 12

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.

PART V

IMPLEMENTATION

The preceding sections of the report described a short and long-range plan for land use in the City's planning area. As has been stated previously, the plan is not intended to be rigid and inflexible. The plan must continually be re-evaluated in the light of changing conditions. The plan should be regarded as a general rather than a specific guide to future growth.

For the plan to have meaning, it must be implemented; without some means of implementating the plan, it has no practical value. There are several implementing tools whereby the plan can be implemented. The major ones are discussed below:

Citizen Organizations

There are a number of civic organizations in the planning area. These groups of citizens are assets to any community and can be relied upon to join the community improvement efforts. The Planning Board and local officials should enlist the aid of civic organizations support in eliminating problems facing the community and implementing the Land Development Plan. A citizens advisory committee made up of members of each of the civic groups could help in implementing the plan.

Subdivision Regulations

Subdivision regulations serve to provide minimum standards for new residential development. Such regulations provide design and construction criteria for such things as roadways, utilities, lot layouts, and open spaces.

The developer is required to follow certain minimum standards in the construction of curbs and gutters, street pavement, water mains, sanitary sewers and storm drainage. Proper subdivision controls protect the subdivider and home buyer alike and also reduces excessive land speculation. The City of Conover recently adopted a subdivision ordinance which has been helping to correct some poor platting practices in the past. This coming FY 1979 the Planning Board plans to review this ordinance and make recommendations for some minor changes in it for the betterment of the community.

Zoning

Zoning is perhaps the most extensively used tool in implementing a Land Development Plan. The City of Conover has a modern zoning ordinance which helps the City in achieving a logical distribution of various land uses and dwelling densities. The zoning ordinance covers the entire city and it's planning area. Here again, it must be remembered that zoning is not an end unto itself; it should be revised from time to time to insure that objectives in the Land Development Plan are being met.

Building and Housing Codes

Housing and building codes enable local officials to assure that new and existing buildings meet minimum sanitation, safety, and repair standards. Such codes can be used to both eliminate and prevent blighted neighborhoods and substandard housing. Plan implementation depends heavily on the adoption and enforcement of a number of codes enacted for the purpose of safe guarding public safety and health through the regulation of building construction and housing maintenance. The Conover building codes are designed to guarantee that new structures are safe and sound from an engineering viewpoint. The requirements for a structure are to adequately provide for fire safety, proper ventilation, and quality construction. Involved with these codes are structural plumbing, heating and electrial requirements. The City is enforcing the state building codes through a contractual agreement with the Catawba County building inspectors who do the City's inspections. Conover should adopt and begin enforcing a minimum housing code. Such a code would allow the City to condemn old dilapidated structures and remove them from the neighborhood. Such a code would also require property owners to make repairs to their structures in order to bring them up to a standard condition, thus keeping a neighborhood from deteriorating.

Public Improvements Program and Capital Improvements Budget

A Public Improvements Program simplifies implementation of the Land Development Plan. The program identifies and lists all of the public improvements which the City will need for the next 20 years and arranges them according to their priority.

Public improvements scheduling is based upon three criteria. First, the proposed projects must be selected on the basis of community need. Second, the projects must be developed within the financial resources of the City, based on a sound, financial plan. Third, the program must be kept flexible through periodic review and revision. The Capital Improvements Budget indicates where monies will come from to finance the Public Improvements Program. This budget lists improvements by priority, the cost of the improvements and the relationship of the project to the City's finances. The Budget extends for a period of 20 years, but is carried out on an annual basis with explicit five or six year budget periods.

The City of Conover recently compiled its first Public Improvements Program and Capital Improvements Budget in June of 1976. This report is being followed and updated annually.

Thoroughfare Plan

Conover officials should make an annual appropriation in the budget for the purpose of implementing an adopted thoroughfare plan. By implementing a well-designed plan, street construction costs can be kept to a minimum, minimum acreage will be used for thoroughfares, traffic flow and safety can be improved, and thoroughfare construction can be realistically programmed.

Extension of Streets and Utilities

The locations of streets and utilities has a great effect on land development. This is illustrated by the Existing Land Use Map under Part I of this report, insofar as streets are concerned. This map shows that, in outlying areas, development takes place in "ribbons" of growth along roads.

In its power to control the establishment of streets, sidewalks, parks and utility lines, Conover has another important tool for implementing the Land Development Plan.

Some of the City's authority over streets and utilities is exercised through subdivision regulations as previously discussed. Certain policies, however, such as those governing the acceptance of streets for maintenance, etc., are often set forth separately. The City's policies on methods of financing the construction of streets and utilities can also have an effect on land development and the tax rate.

School Site Selection

The Board of Education can influence land development through its choice of school sites. All other factors aside, most families with school age children would prefer to live near a school. This is especially true of elementary schools. Thus, it can be expected that the development of an area will be stimulated by the location of an elementary school nearby.

Central Business District Revitalization

City officials and merchants should get together to organize and sponsor a central business district revitalization program. Such a program should enlist the aid of downtown merchants, property owners, civic groups and interested citizens in efforts to improve the appearance and increase the economic activities in the CBD's. Improvement efforts should include street and building beautification, diversified shopping opportunities, increased shopping conveniences, and promotional advertising.

Housing Improvement Program

The City Council of Conover should look into the recommendations that were setforth in the June 1977, Housing Survey and Analysis Report. This report provides detailed recommendations and suggestions on upgrading the existing housing stock, as well as looking into various federal sponsored programs.

Public Housing

North Carolina cities also have the power to appoint a Housing Authority with the responsibility for providing low-rent public housing for those not otherwise able to afford decent housing meeting standards of health and safety.

Such housing is designed to take the place of slum areas destroyed in the course of a redevelopment project or as a result of enforcement of a minimum housing standards ordinance.

An area in which Conover could consider for public housing could be the low and moderate income area that is located in the southwest section of the community.

Public housing also should conform to the Land Use Plan. There is no more reason for placing a publicly-owned development on an unsuitable site than placing a privately-owned development there.

Acquisiton of Open Space

Cities and counties in North Carolina have the authority to acquire open spaces and areas for public use and enjoyment. Such acquisiton may be in fee simple, or a lesser interest or right in real property.

A city or county may also acquire the fee to any such property for the purpose of conveying or leasing it back to its original owner or other person, with covenants or other agreements which limit the future use of the property so that the general public can use and enjoy it as open space. For example, a city or county could purchase an area of natural scenic beauty and then sell it back to its original owner with the provision that it be used exclusively for livestock grazing or other agricultural purposes. Thus, the land would remain in productive use but it would be protected from urban encroachment so that the general public could use and enjoy it as open space.

Financial assistance is available from the Federal Government for the acquisition of open space in urban areas. Conover is presently trying to secure a BOR grant for purchasing a 2.5 acre site in the southwest for a neighborhood park for a low and moderate income area. The Planning Board and City Council feel that this park site will become a reality in the near future.

Revenue Sharing

Special Revenue Sharing monies returned to local areas from the State and Federal governments is another way to help to bring about implementation of the plan by financing certain capital projects involved in the plan.

PART VI

THE IMPACT OF THE CONOVER LAND DEVELOPMENT PLAN ON ENERGY CONSERVATION

The land use policies advocated in the Conover Land Development Plan will have mixed influences on energy conservation. The Plan if implemented, will promote the separation and clustering of land uses. This will necessitate the commuter trip from residential areas to employment and commercial areas. This trip will be by private vehicle and will consume energy. At the same time, the land use policies in the plan utilize several methods in which to conserve energy. Due to the smallness of the planning area size (approximately 10.4 square miles), energy consumption by local citizens traveling to and from work will not be an important factor in the consumption of energy. The Plan consolidates residential, commercial and manufacturing areas wherever possible in clusters. Such a design will eliminate the need to travel long distances from residential areas to commercial or manufacturing areas. Also manufacturing areas are located near rail and major arterials, which will promote energy conservation in handling of goods and services.

ENVIRONMENTAL ASSESSMENT STATEMENT

The implementation of the Land Use Survey and Land Development Plan will have mixed influences on the environment of Conover. These influences, both beneficial and adverse, are presented below.

Existing Physical Environment

Land and Climate:

Depending upon the proposed use of the land, some areas of Conover will become more urbanized and some will have open space and natural vegetation. Therefore, the capacity for erosion will be increased in some areas and decreased

in others. The plan advocates controlled growth and some of the adverse effects of urbanization will be offset by open space preservation. There are no environmental effects on the climate as a result of this plan.

Air and Water Quality:

Pollutants affecting air and water quality, such as dust, smog, odors, smoke and other wastes will concentrate to a greater degree in areas of urbanization and may even affect non-urban areas. To as great an extent as possible, residential and open space areas will be protected from pollutants as polluting land uses, such as manufacturing, will be separated from non-polluting uses such as residential and open areas. The Hickory-Newton complex 201 Facilities Study and the Conover- Catawba County Facility Plan, when implemented, will improve the water quality through the City's planning-drainage area. The City's voters recently passed $1,230,000 worth of general obligation bonds to upgrade its water and sewer sysetems.

Noise:

Noise pollution will also be concentrated in urbanized areas. Residential and open space areas will be relatively free from noise.

Vegetation, Wildlife, and Natural Areas:

Vegetation, wildlife, and natural habitat will be preserved in areas planned for non-urban type growth. In areas of heavy urban growth, their chances for survival are somewhat lessened.

Surrounding Land Use and Physical Character of the Area:

Mixed and non-conforming uses will be avoided and land use densities will be planned according to supportive natural and man-made potentials.

Infrastructure:

Demand for ground water supply will be increased in areas of urbanization and possibly in some undeveloped areas. Sanitary and solid wastes will be concentrated in growth areas and will decrease in non-urban areas. The demand for transportation facilities, storm drainage, and energy may increase in urbanized areas but will decrease in areas preserved for open space.

Existing Social Environment

Community Facilities and Services

Increased population and urban growth will increase the demand for community facilities and services.

Employment and Commercial Facilities

Areas for commercial and related uses including retail, wholesale and services will be separated from residential areas, which will necessitate some small commuting trips locally; however, these commercial facilities have been located in groups so as to make these trips as efficient as possible. Major employment centers (industrial uses) are proposed for separation from residential neighborhoods, thereby protecting neighborhood values and preserving the local tax as well.

Historical/Archeological Properties

The proposed Land Development Plan and its policies will have no known effect on the historical/archeological properties in the planning area. There is only one such property in the planning area, and that site is presented below:

Bolick Buggy Shop

The Bolick Buggy Shop is located one block off Highway 16 in Conover on the property of the Resource Group. The shop was built before 1886 and owned

by Jerome Bolick. This structure is significant in that buggy and wagon production was one of the earliest industries in Catawba County. Prior to the fading away of the buggy, the shop produced about twenty-eight a week. The building is still in good condition. Map 13 illustrates the numerous historic sites in Catawba County along with the Bolick Buggy Shop.

Aesthetic Environment

The goals and objectives established in this report were designed to preserve the outstanding characteristics and to eliminate the bad in the City's planning area. The Land Development Plan seeks to enhance and to preserve the areas of natural and scenic beauty, wildlife, vegetation, soils, water, etc. and to encourage development to locate where public facilities and utilities, as well as services can be made available in the future with the least amount of cost to the general public.

Public Reaction to the Proposed Plan:

The Conover Land Use Element (Land Development Plan) has not generated any known objections from the local citizens.

Alternatives to the Proposal:

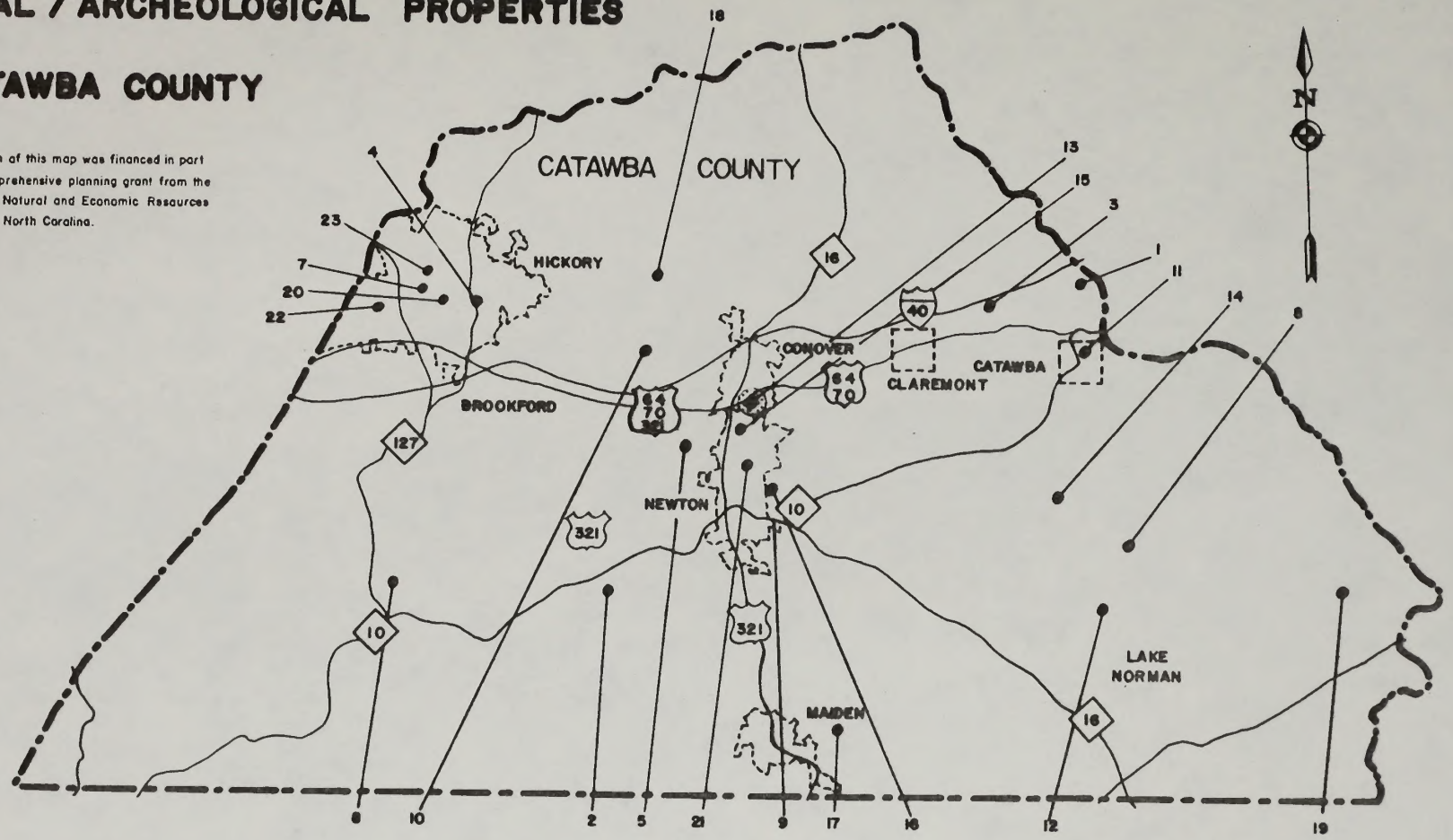
1. No land Use Survey/or Land Development Plan. The various natural resources and their potential, as well as the land use problems and their trends would not be recognized nor incorporated into the City's Land Development Plan for establishing policies in order to guide future land uses. Consequently, their benefits would be limited and incompatible land uses would continue to occur and pollution and erosion would most likely increase as well. A report such as this brings forth the problems in the community so that some direct action can be taken by those in authority.

2. No growth policy. An alternative such as this would certainly preserve the physical environment; however, the socio-economic and political environment would surely become stagnant and start to deteriorate due to lack of progress and motivation from the lack of new inhabitants into the community.

HISTORICAL / ARCHEOLOGICAL PROPERTIES

in CATAWBA COUNTY

The preparation of this map was financed in part through a comprehensive planning grant from the Department of Natural and Economic Resources of the state of North Carolina.



CATAWBA COUNTY NATIONAL REGISTER PROPERTIES

1 Perkins House
2 Rudisill-Wilson House
3 Bunker Hill Covered Bridge
4 Shuford House
5 St. Paul's Church
6 Weidner Rock House
7 Propst House
8 Powell-Trollinger Lime Kilns

STATE and LOCAL SITES

9 W.A. Williams House (Bob Cline House)
10 George Hoffman House
11 Dr. Fred T. Long's Office
12 Bell's Creek Campground
13 Bolick Buggy Shop
14 Murray's Mill
15 J.Y. Killian House
16 Bickett House
17 John Fulenwider House (White House)
18 Peter Wagner Log Farm
19 Mott's Grove Campground
20 Hickory Railroad Depot
21 Dr. John Foil House (Lamar Cline House)
22 Piedmont Wagon Company
23 J.D. Elliot House

SOURCE: Historic Site Inventory, A Survey of Alexander, Burke, Caldwell, and Catawba Counties, Western Piedmont Council of Governments, May 1975

Map No. 13